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IN THE MATTER OF "THE NATURAL
GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into
Scheme to be adopted for Gathering,
Processing and Transmission of
Natural Gas in Turner Valley

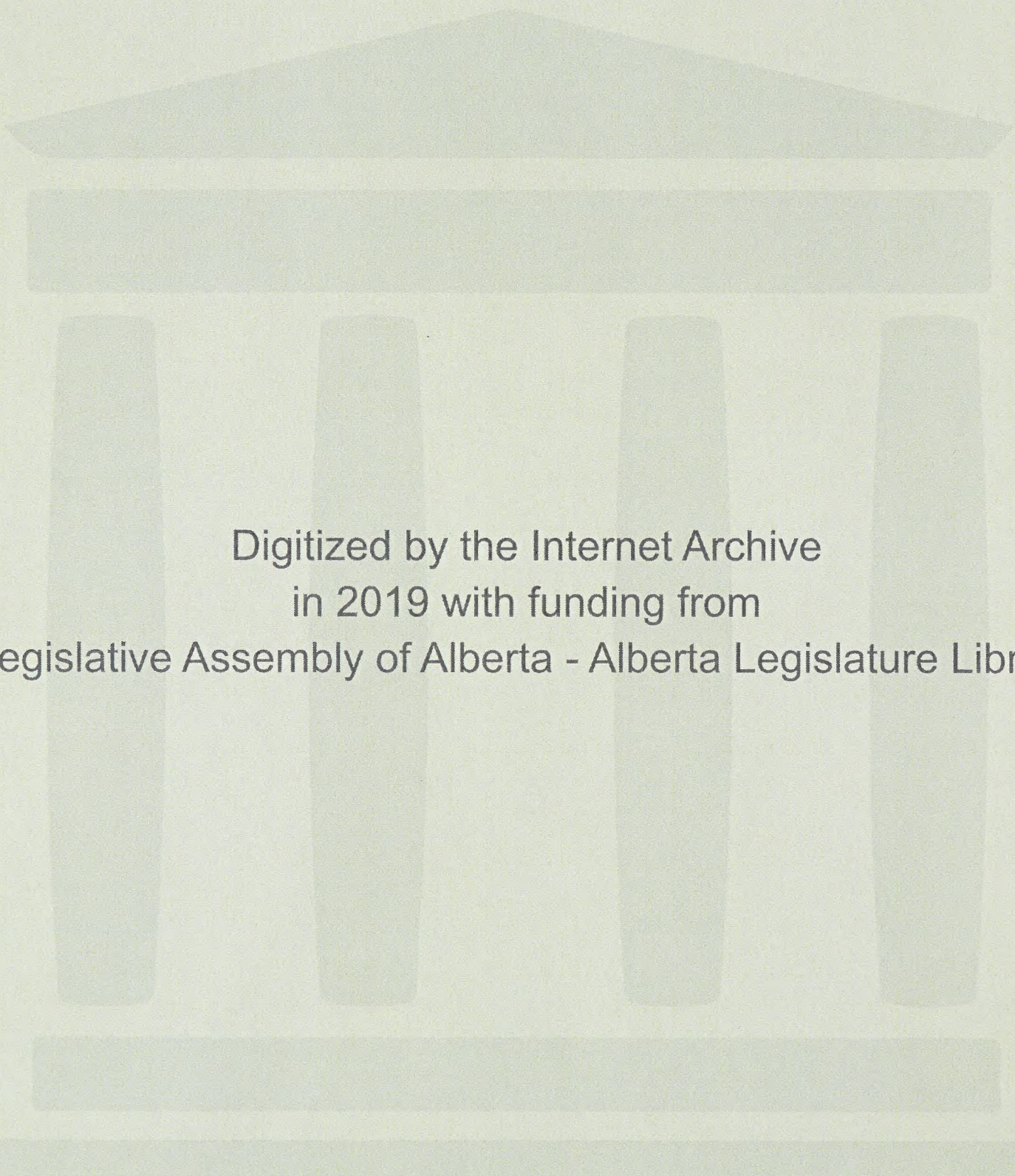
G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta February 19th, 1946

VOLUME 68



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I N D E X

VOLUME 68

February 19th, 1946

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RALPH E. DAVIS (Recalled)

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C-1-1 9.30 a.m.

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

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RALPH E. DAVIS, having been recalled:

THE CHAIRMAN:

All right, Mr. Chambers.

Q MR. CHAMBERS:

Mr. Davis, I think you told me yes-

terday that since about 1926 the Gas Company has been dependent on the Turner Valley field for its entire gas supply except emergency supplies and such, from Foremost and Bow Island?

A Yes, that is right.

Q Yes, and prior to the Gas Company's arranging for their entire supply from Turner Valley, was not the retail price in Calgary 43 cents?

A I do not have a recollection of that, but I have no doubt that it was higher, compared with present rates.

Q This is Exhibit 134, which has been put in showing the changes of rates?

A All right.

Q And here is November 1925?

A Well, in 1925 the rate for the first 200,000 cubic feet was 43 cents.

Q Yes?

A Yes.

Q And then, of course, they were graduated down?

A Graduated down.

Q For the larger amounts?

A For the larger amounts.

Q And at about that time, late in 1925 or early in 1926, in order to serve the Calgary market, were not arrangements made as a result of which the Gas Company built a new line from Turner Valley to Calgary?

A That is right.

Q And at the same time the Turner Valley suppliers undertook

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to purify the gas?

A That is right.

Q At the same time the Imperial Refinery arranged to take gas from Turner Valley and agreed to pay a minimum of \$50,000.00 a year to the Gas Company for five years for transporting that gas, is that not so?

A That is undoubtedly true, but I do not know that.

Q Did you hear anything about that, you never heard anything about that?

A No.

Q Now following those arrangements which we have been talking about for the entire supply from Turner Valley, was not the retail rate reduced to 38 cents and again I refer you to Exhibit 134?

A Well this rate schedule shows that was made in December 1926, approximately one year after November 1925, the rate for the first 150,000 cubic feet was 38 cents.

MR BLANCHARD: I have a little trouble hearing you.

WITNESS: I am reading this schedule which shows that 38 cents was the rate in December 1936.

Q MR. CHAMBERS: 1926?

A 1926, I am sorry.

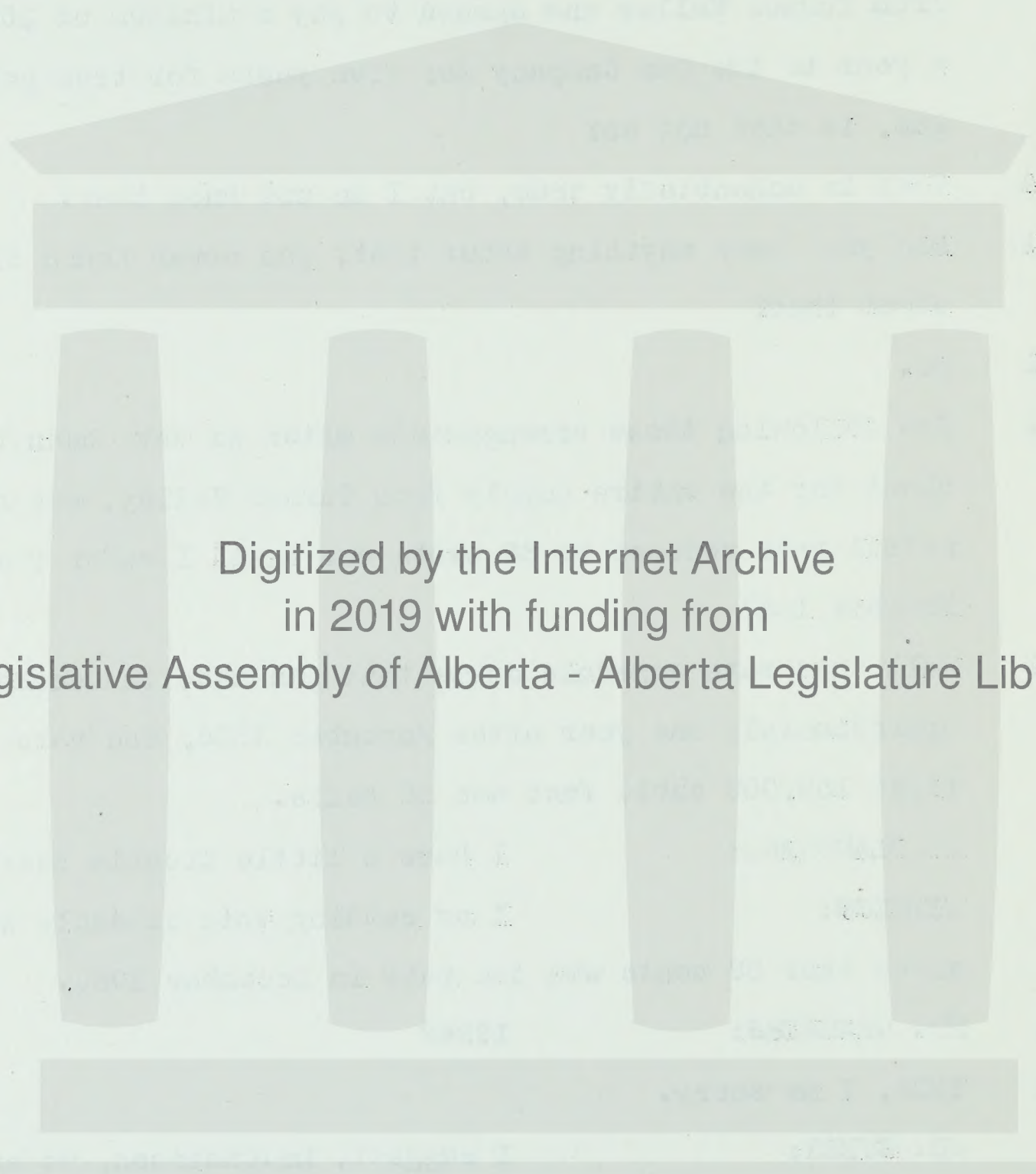
MR. STEER: I suggest, Mr. Chairman, we are not getting any benefit by having Mr. Davis read the schedule instead of having you yourself read them.

MR. CHAMBERS: Mr. Chairman, I suggest.....

THE COURT: You can put it to him this way, Mr. Chambers, that there is a schedule or an exhibit filed which shows what conclusions you want.

MR. CHAMBERS: Yes, that will shorten it up.

Q MR. CHAMBERS: Now, Mr. Davis, as I understand it,



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Ralph E. Davis,
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and as appears from an exhibit which has already been filed, Exhibit 139, which is the decision of the Board of Public Utility Commissioners in 1931, and the opening part of that exhibit indicates that the rates were changed again in 1928, have you any personal knowledge of that?

A No, I was not aware of that.

Q I will refer you to this Exhibit 139, which is a decision of the Board of Public Utility Commissioners of the 20th of July, 1931, and it says this:

" In 1926, as a result of a rate hearing before the Board of Public Utility Commissioners, a block rate system for natural gas supplied by the Canadian Western Natural Gas, Light, Heat & Power Company Limited, which will be hereinafter referred to as "the Company", was established, the net rate for the first 150,000 cubic feet being fixed at 38¢ per M.C.F. In 1928, negotiations between the City of Calgary and the Company resulted in an agreement being reached between the parties whereby a new schedule of rates was arrived at, which schedule was subsequently approved of by this Board."

And then it goes on to show the dates when that rate was effective, that is from a certain date, and then it goes on

"The schedule then approved is as follows:-

The first 150,000 cubic feet 33¢ net".

So then we have the situation that early in 1925 or before the Royalty Agreement was signed, the rate was 43 cents net, and then we have in, following 1926, a rate of 38 cents and now we are down to a rate of 33 cents, and do you recall, Mr. Davis, that the rate, the sale rate in the

John W. Davis
Secretary of the Navy
Washington, D.C.

and the Department of the Navy is authorized to issue orders
relative to the use of the word "Navy" in the name of the
Department of the Navy, and the Department of the Navy
is authorized to issue orders relative to the use of the word
"Navy" in the name of the Department of the Navy.

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Royalite contract of 1925 was 10 cents and 9 cents, do you recall that?

A Yes, I recall that it was higher than the present price.

Q And now you know it is $7\frac{3}{4}$ cents?

A That is right.

Q Were you consulted, or did you have any part in the negotiations that led to that reduction to $7\frac{3}{4}$ cents?

A No, nothing.

Q Then in 1931, Mr. Davis, as I pointed out, there was another hearing before the Board as shown in this Exhibit 139, and you took part in that hearing?

A That is right.

Q And the 53 cent rate was not changed at all at that time, do you recall that?

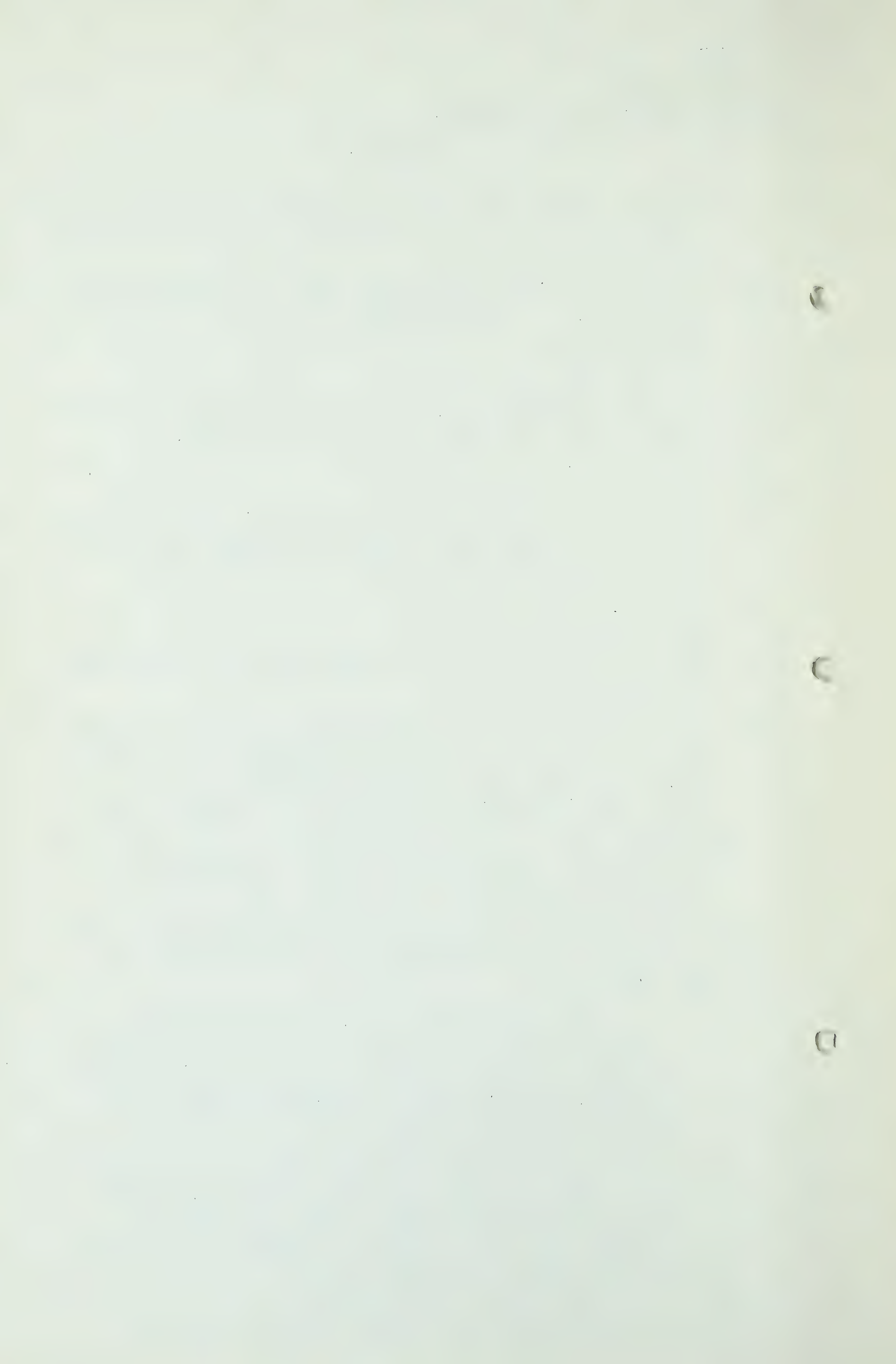
A Well I do not recall the results but I recall the hearing.

Q That is what happened according to Exhibit 139, and I am giving these, Mr. Davis, because later on I want to put a proposition to you and I am referring you to this clause or clauses in the judgment of the Board of Public Utility Commissioners of the 20th day of July, 1931, it is page 18 on the copy which I happen to have, and the heading is "Past Surplus":

" The question has been raised in this case as to the treatment of earnings both before and after the hearing of 1926, showing a surplus or deficit as compared with the allowed return.

The City shows that these excess profits in 1927 were \$104,967.00 and in 1928, \$124,044.00, and asks that these amounts be applied by the Board in reduction of the future rates.

In regard to the 1928 figures, it may be



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"pointed out that these cover the whole of that year. By reason of the agreement between the City and the Company in 1928, when the rates were further reduced, excess profits were not to be accounted for and deficits were not to be further considered."

I am not reading it all, and then it goes on:

" The Company has filed statements showing both the Company's surplus earnings and deficits as far back as 1922, and according to its figures the total deficit of the Company in permitted earnings from that time to October, 1928, the time when the agreement in question came into effect, amounts to over \$556,000.00."

Now I just want you to keep in mind the gradual reduction from 1933 to 1938, and the facts, as mentioned here, that in 1928 and 1927, they had surpluses, and prior to that, going back as far as 1922, deficits of \$556,000.00.

Now I suggest to you, Mr. Davis, another matter which I wish you would consider and it is this, that prior to the Royallite agreement in 1925, the Gas Company had spent considerable moneys in an endeavour to obtain on its own part adequate gas supplies and reserves, without very much success, what do you say as to that?

A I think that is right.

Q And as a matter of fact that is referred to in this Exhibit 139, but I will not take the time to read it now.

Now in this 1931 hearing, there was considerable concern, as I understand it, expressed by you and by the Board, as to the Turner Valley supply and as to its continued adequacy, would that be a fair way of putting it?



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A Our concern was.....

Q Was not that.....

Awas due to the extreme wastage going on.

Q Yes, but first of all I asked you, was there a concern at that time?

A I do not recall what the Board may have expressed in that matter but I think there was concern among those of us who were dealing with the problems of the Gas Company. I think we had concern and openly expressed that concern.

Q Let me refer you just briefly to one or two excerpts from this Order of 1931, and it may refresh your memory?

A I have no doubt the Board had concern. They should have had if they did not have concern.

Q And you had concern?

A Yes, I had.

Q In one place in the decision it says this:

" In the present case it has been found quite impossible to determine any gas rate save upon a temporary basis. Many essential elements of expense and amortization are very much dependent upon the stability and duration of an ample supply of gas from Turner Valley."

And then on page 3:

" In his evidence, Mr. Ralph E. Davis indicated a probable minimum remaining gas reserve in the field of 240 billion cubic feet. Mr. Stanley Davies made a more optimistic estimate, placing such reserve at 566 billion cubic feet."



M-1-1 - 9.45 A.M.

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Q And then there follows a further statement. Well I had better read it to you. "The 130 billion cubic feet, which represents approximately the gas production for a year, assuming that the 40% restriction is effective and that no further wells are brought in, amounts to one-half of Mr. Ralph E. Davis' estimate of the gas remaining in the field and a little less than one-quarter of the estimate given by Mr. Stanley Davies".

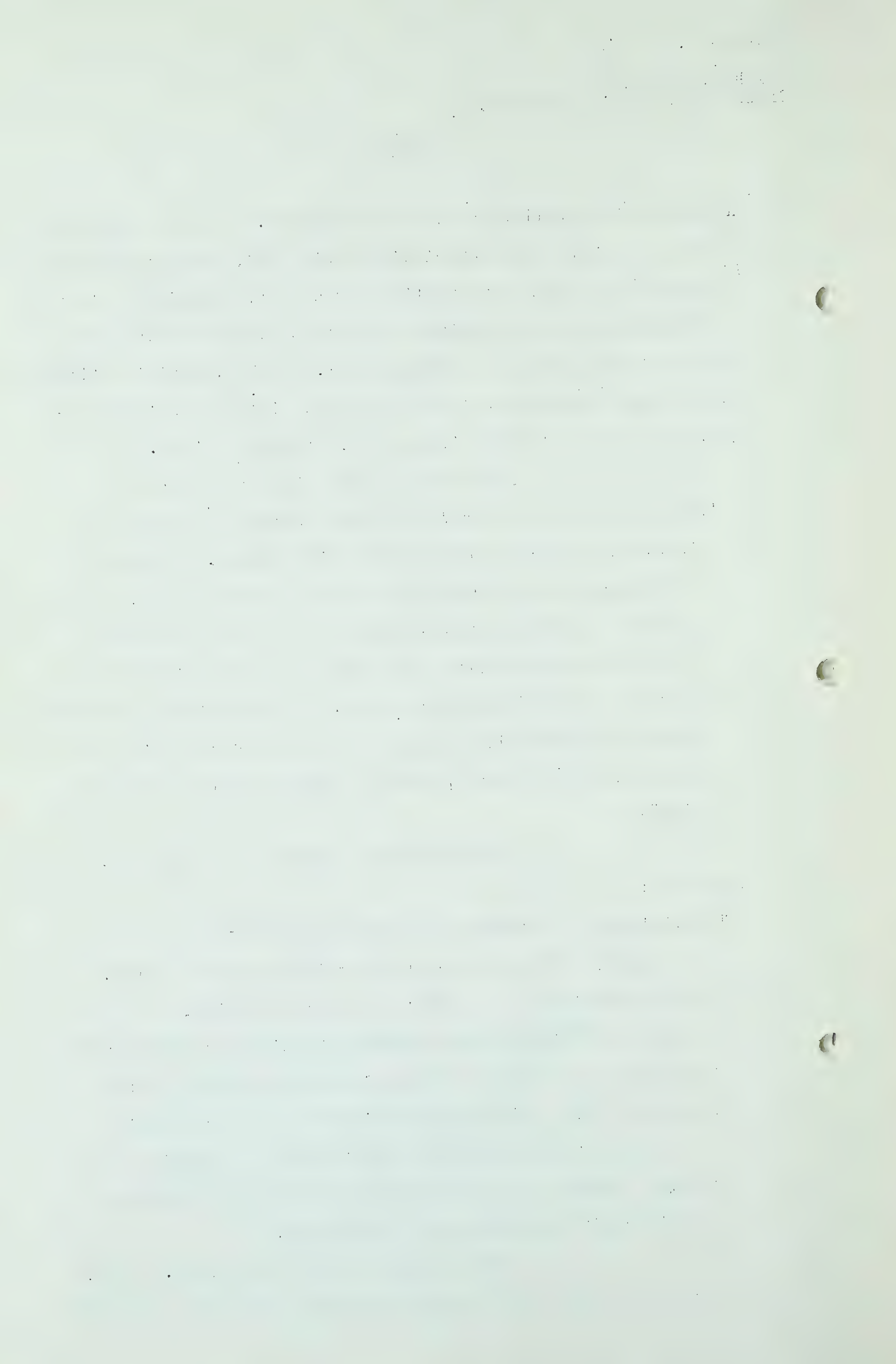
And then follows this paragraph:

"The loss of the Turner Valley gas supply would have a disastrous effect upon the Company's service. Unless the Company discovers further large reserves of gas, the sale of industrial and commercial gas would necessarily be eliminated and this would throw a heavy additional burden upon the domestic consumer. The resulting increased cost of domestic gas would also tend to reduce that consumption, with a still further adverse effect upon the price".

Then there is another reference later. It says this:

"Conditions not under the control of either the Company or the public, vitally affect the earnings of this system. These conditions are subject to great variation, particularly the ^{general} business and economic situation and the maintenance of the supply of low priced gas in the Turner Valley field. It is highly desirable that a change in these conditions should be reflected by a change in the rate, before the accumulation of any large surplus or deficiency in earnings has taken place".

Now, having read that to you, Mr. Davis,
I suggest to you that the Board in that particular case made



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no change in the rate, but said it was on a temporary basis and the reason for it was the concern about an adequate supply in Turner Valley. Does that recall anything to your memory ?

A Well I am sure that the rate arrived at at that time took into account the certainty as to future gas supplies. I believe the Board at that time authorized the Company to pursue a policy of gas exploration and allowed them a certain amount of money annually for the purpose. A decision though would not have been reached had there been an assurance of long supply. So the situation in Turner Valley, the uncertainty as to the future certainly had a bearing.

Q Yes, now there was another change in rate. Do you recall in 1939 ?

A I have been aware of changes from time to time, by negotiation I think.

Q Well this Exhibit 134 shows a change effected in October 12th, 1939. I would like to tender as an Exhibit certified copy of the Order of the Board of October 12th, 1939. I have just the one copy.

CERTIFIED COPY OF THE ORDER OF THE
BOARD DATED OCTOBER 12, 1939 MARKED
EXHIBIT 149.

Were you acting for or consulted by the Gas Company in the negotiations that led up to this new arrangement in 1939, Mr. Davis ?

A I think so. I think that is true.

Q And I notice in that Order, Exhibit 149, there appears a rate called Domestic Combination Rate No. 2. The first four Mcf \$1.50 and all additional twenty-seven cents per month. That was the first time that rate came in ?

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

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A So far as I know.

Q And that rate is the most popular or the most commonly used of domestic rates ?

A I think so.

Q Now as I understand it Mr. Davis, and I am asking you if you can enlighten me on it at all, that about that same time in 1939 there were certain discussions or negotiations between the Royalite Company and the Gas Company as to the probable or suggested increase so far as Royalite was concerned of the seven and three-quarter cents ? Do you recall that ?

A Yes, I think that is right, I do recall suggestions.

Q And was not Royalite in 1938 to 1939 suggesting an increase for the reasons as expressed anyway to your clients that it was expending considerable monies on compressors and acquiring gas cap wells. Do you recall that ?

A I am frank in telling you I do not recall their reasons. I think that my contact at that time, Mr. Chambers, was not in being present when negotiations between the two were conducted but rather I was present in discussions with the Gas Company management.

Q And nothing arose in those discussions which gave you any information that you can now recall ?

A Not that I recall.

Q I see. Now what do you say as to this Mr. Davis. Didn't you at that time express yourself that some increase was warranted or might be warranted ?

A I do not think so.

Q You do not recall it ?

A Well it is a surprise that you suggest that I did say that. I have no recollection of any such thought.

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Q Then in 1943, the Board made a further Order approving a reduction of the Calgary rates and I tender as an Exhibit certified copy of an Order of the Board of Public Utility Commissioners, dated 26th November, 1943.

THE CHAIRMAN: And you can add very reluctantly.

CERTIFIED COPY OF THE ORDER OF THE
BOARD DATED 26TH NOVEMBER 1943
MARKED EXHIBIT 150.

MR. CHAMBERS: I am going to read part of that Order.

Q This is the Order of November 1943. You notice the Domestic Combination Rate No. 2, first four Mcf one hundred and fifty, and then all additional twenty-five. In other words -

A The first four Mcf \$1.50, you said one hundred and fifty.

Q I am sorry. In other words, the old twenty-seven figure now becomes twenty-five. Now you may not have seen this Order and I have not read it recently, but I want to read for the purpose of our discussion, the first part, the recital clearly indicates that the Order or rate schedule was arrived at as the result of negotiations and then Clause 6 of the Board's Order:

"This Order is made by the Board at the express joint request of the City and the Company and so far as is known to the Board the reduction in rates effected hereby is not based upon any scientific principle and must be considered to have been arrived at on the basis of expediency. In granting this Order the Board in the exercise of its powers hereafter, is not to be deemed to be prejudiced hereby nor shall this Order affect any consideration to be given by the Board to future rates to be imposed or charged by the Company to its consumers."

In any case no matter what the reasons for the matter were now

1. The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is of great importance in the theory of differential equations.

2. In the second part, we consider the case of a linear differential equation. It is shown that the problem can be solved by the method of variation of constants.

3. In the third part, we consider the case of a nonlinear differential equation. It is shown that the problem can be solved by the method of perturbation.

4. In the fourth part, we consider the case of a system of differential equations. It is shown that the problem can be solved by the method of matrix.

5. In the fifth part, we consider the case of a partial differential equation. It is shown that the problem can be solved by the method of separation of variables.

6. In the sixth part, we consider the case of a boundary value problem. It is shown that the problem can be solved by the method of Green's function.

7. In the seventh part, we consider the case of a problem of stability. It is shown that the problem can be solved by the method of Lyapunov.

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

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they arrived at in 1943, late in 1943, with the domestic rate at twenty-five cents for the first time....

A That is right.

Q In other words we had back in 1925/and the comparable figure in 1943 is twenty-five cents ?

A I am not sure if those two are comparable. In any case they are roughly comparable.

Q It is comparable in this way, it is the popular and most generally used rate. You will go that far ?

A Well the figures are so wide apart it matters not whether they be comparable or not.

Q Now as I understand it during that period from 1925 down to the present, the Gas Company has not spent any large amount in ensuring its own gas supply. What would you say as to that ?

A Well the Gas Company for many years has maintained a Geological Department. A Department charged with the duty of making studies and surveys of what might be considered prospective gas land and there was some exploration work carried on, field surveys and exploratory drilling. I think that the Gas Company may have spent in that time period that you have named, maybe a million dollars. I do not know.

Q You do not know ?

A I do not know the figure. It is substantial.

Q Well would you agree with this, whether it spent little or no money or whether it has spent large amounts or whether or not it has maintained a Geological Department, in any event it has not found any appreciable gas reserve of its own in that period ?

A That I think is correct.

M-1-6

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

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Q Now I think Mr. Davis, you told me when you were here first in this Hearing that you considered it good and sound practice for present rates, present retail rates, to provide or pay in part or to pay out that way something to ensure future gas supplies. Do you recall that ?

A You mean when I was here in March of this year ?

Q March of last year, yes.

A Of last year.

Q Yes.

A Well I do not recall that, but I do not deny it I guess.

Q My recollection is that you said that was sound practice ?

A Well regardless of whether I said that at that time it would be my judgment that depending upon the situation, if a Gas Company has a prospective shortage of gas they should do something about it and that would require the expenditure of money. If they are not facing a shortage in any period of years that we would consider quite a long period, say fifteen years or more, then I would not think it too smart to be spending much money.

(Go to Page 5494)

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T-1-1 10 A.M.

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

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Q Well, Mr. Davis, is not this the basic reason why it is proper to include it in present rates some charge or expense for maintaining a supply for the future, because it is good business in the interests of the consumer. Is not that the basic reason for it?

A I think that is right. I think it is right that the supply for the future should be protected. I think that.

Q And if the protection is in the interests of the consumer, he should pay for it.

A You are willing to have me think that if the

Q All I am just trying to find out is what you do think.

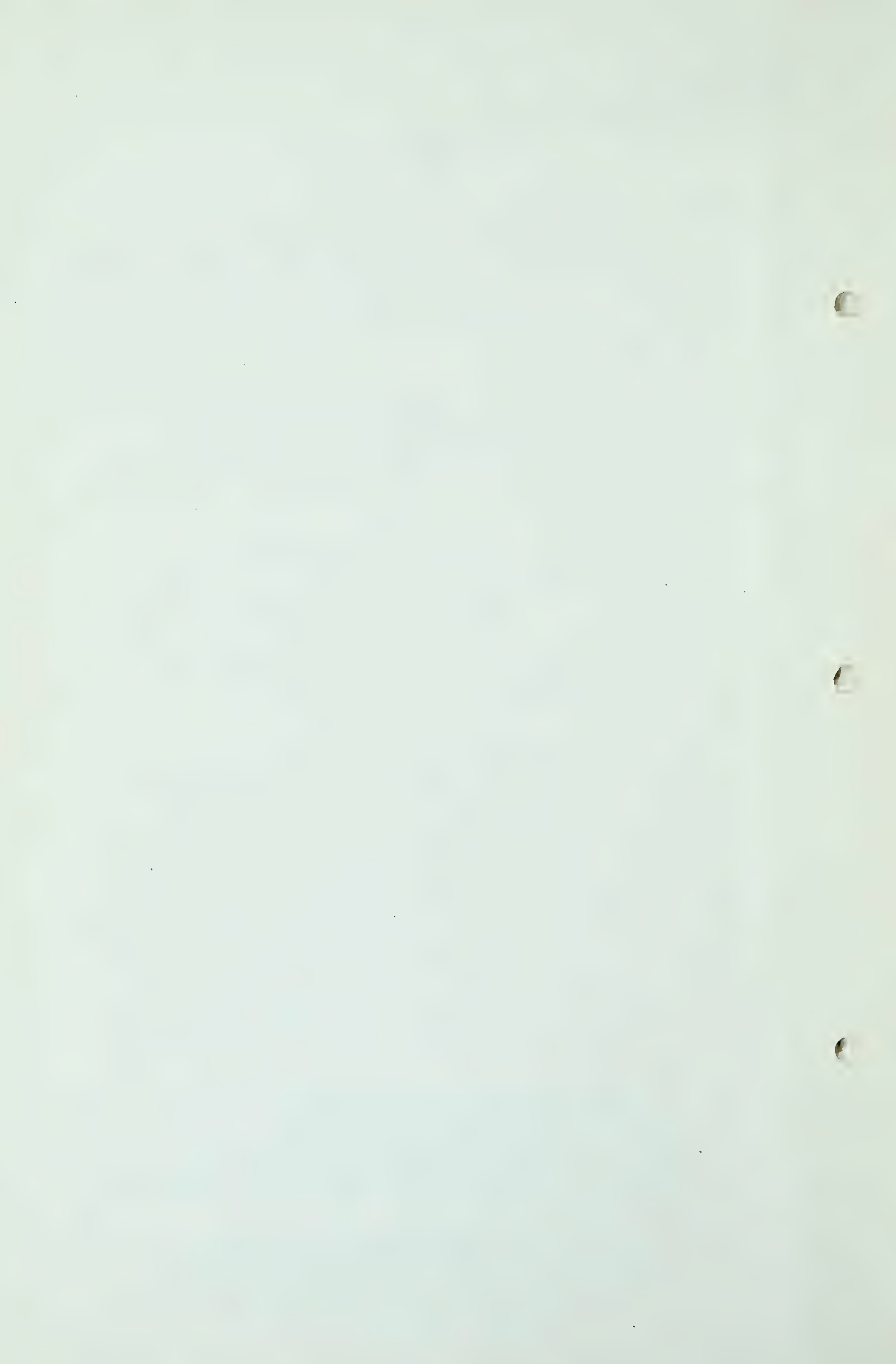
MR. STER: What Mr. Davis is saying is you are making suggestions to him and I think he ought to be allowed to explore what your suggestion is.

MR. CHAMBERS: Oh absolutely.

A If the prolonging of the supply in Turner Valley being specific now is positively a benefit to the people of Calgary and if it can be considered as of no benefit whatever to the producers in Turner Valley, then I would feel that the producers should not share in the expense and that he who does benefit should pay. You are asking me if the people of Calgary, through their Gas Company and through a somewhat higher rate, should not pay for a theoretical advantage.

Q Yes, I am putting the proposition generally. Well no, not theoretical advantage. I have not put any question to you about Turner Valley yet. We will come to that later. Well, go ahead.

A I would say that it is a benefit to prolong your supply and secondly he who benefits from that prolongation of



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supply should pay for it. As a theoretical thing and that has nothing to do with Turner Valley. Nothing to do with Turner Valley. That is just basic principle.

Q If the consuming market, the consuming fuel market, Calgary, is assured that any future supply or any money spent on the future supply will involve that supply being available to it and not to somebody else, would you not suggest that the consumer under those circumstances should pay for it?

A Should pay all?

Q Yes, if he is going to use it?

A I have said I think that he who benefits should pay.

Q Under those circumstances he is bound to benefit?

A I did not say he should pay all the benefit. He enjoys part of the benefit. Are there not others who benefit besides that fellow in Calgary?

Q Well now, as I understand it, you would admit to me that if the Gas Company is itself directly spending money to insure on its own part a gas supply for the future of Calgary, that they should be reimbursed through present-day rates the money they now spend or capital charges on the money they now spend. Would you agree with that?

A That sounds fair. Yes, that is fair. Somebody has to pay, either the present consumer or the future consumer.

Q The Gas Company is benefitting by that expenditure too is it not?

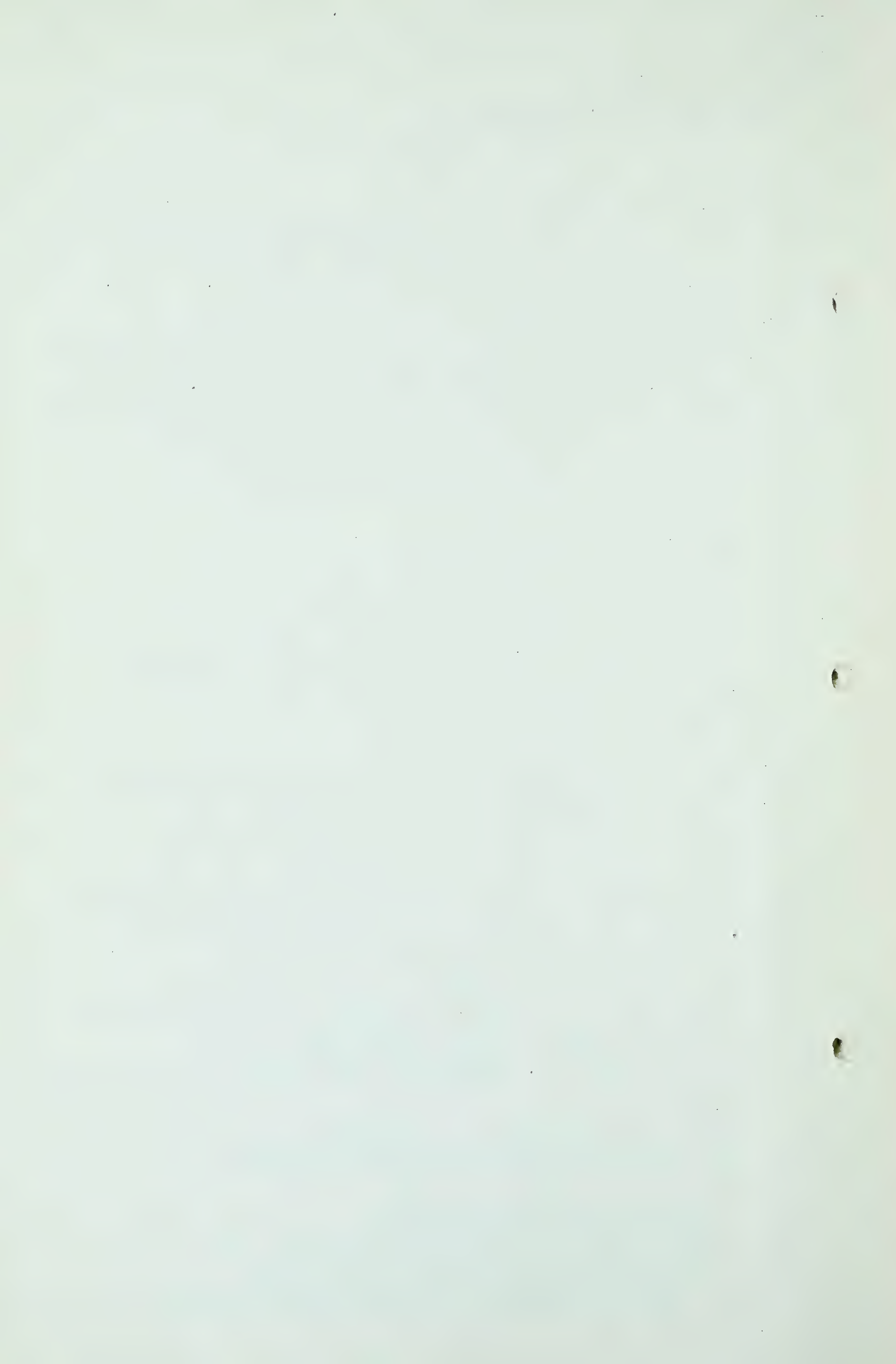
A That is the money's that the Gas Company spend?

Q Yes?

A To try and prolong their service?

Q If they invest money they should get a return on it?

A Yes. They are trying to. They are trying to benefit



Ralph E. Davis,
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themselves.

Q Do you suggest they should pay part of that expense and that they should take a lower return on that money than on some other money?

A Yes, for the reason that their pipeline system, everything practically, will, if it spent that money successfully, have a prolonged life and any business that is assured of a prolonged life can be financed on lower rates for money and that means that they or the investors in their securities are being

Q They take some of the risk out of the business?

A That is right.

Q You are not suggesting, as I understand it - correct me if I am wrong - that the Gas Company, this one or any other that is allowed we will say an 8% return on its plant and equipment, and spends we will say \$500,000.00 on an area for gas reserves, are you suggesting that the rate of return on the \$500,000.00 should be a lower rate than 8%?

A Oh no.

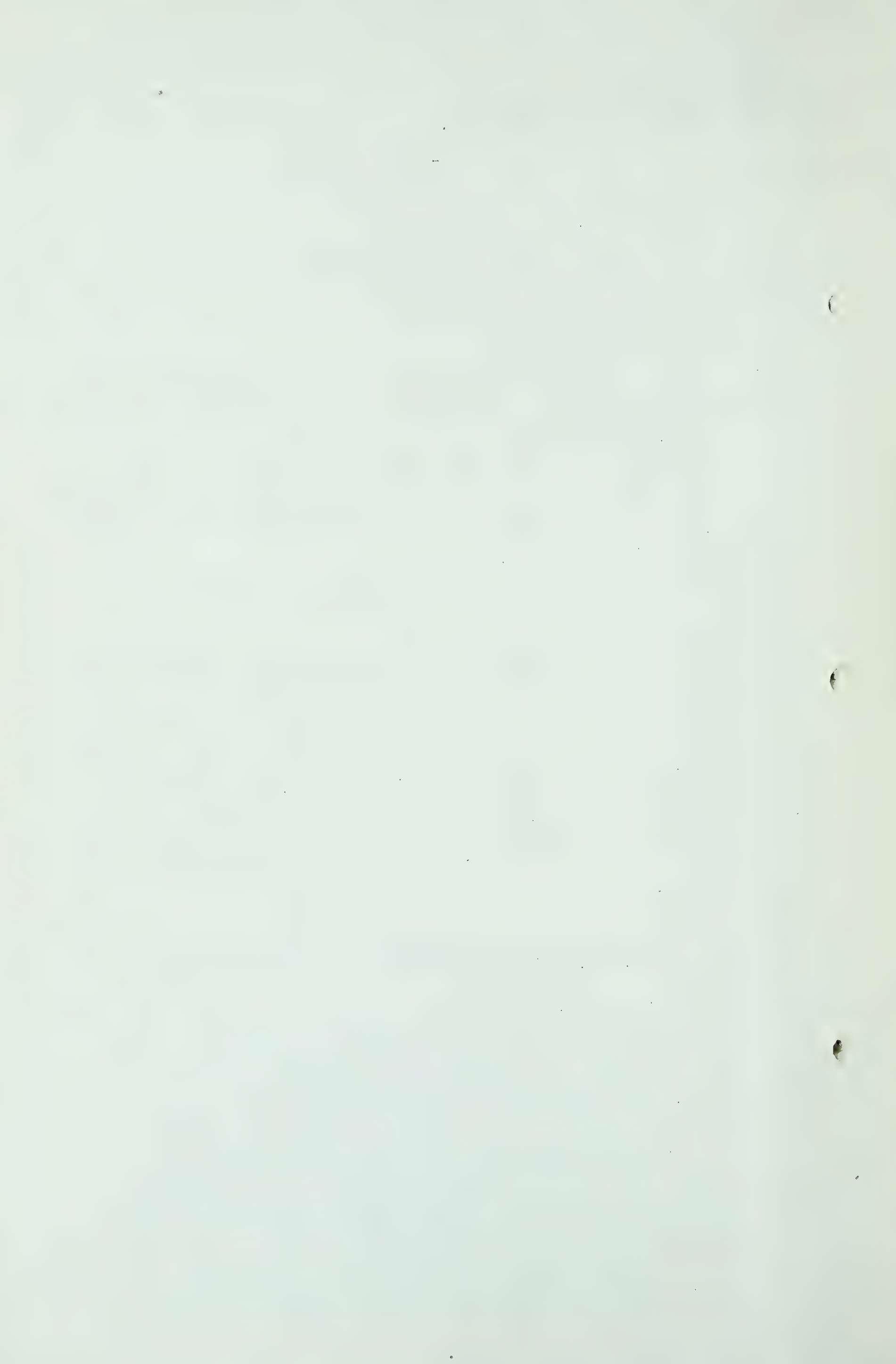
Q I see?

A The \$500,000.00 is not necessarily a capitalized item anyway.

Q I am assuming it was in this particular case?

A Even if it be, I do not think it leads to any good to set it aside and give it some different rate of return.

Q Well now, whether or not the money that is spent to assure customers of future supply has to be spent by the retail supplier or the wholesaler who supplies that retailer would not, in your judgment I take it make any particular difference as to whether or not the consumer



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should pay?

A I think that is proper.

Q Would you turn, Mr. Davis, to page 3 of Exhibit 148, your Report, the second paragraph and the last sentence? You say "I know of no case in the States where the cost of conservation is borne by any party other than the party wasting the gas?"

Now I suppose that the fact you have not such knowledge does not necessarily mean there have been no such cases, you will go with me that far?

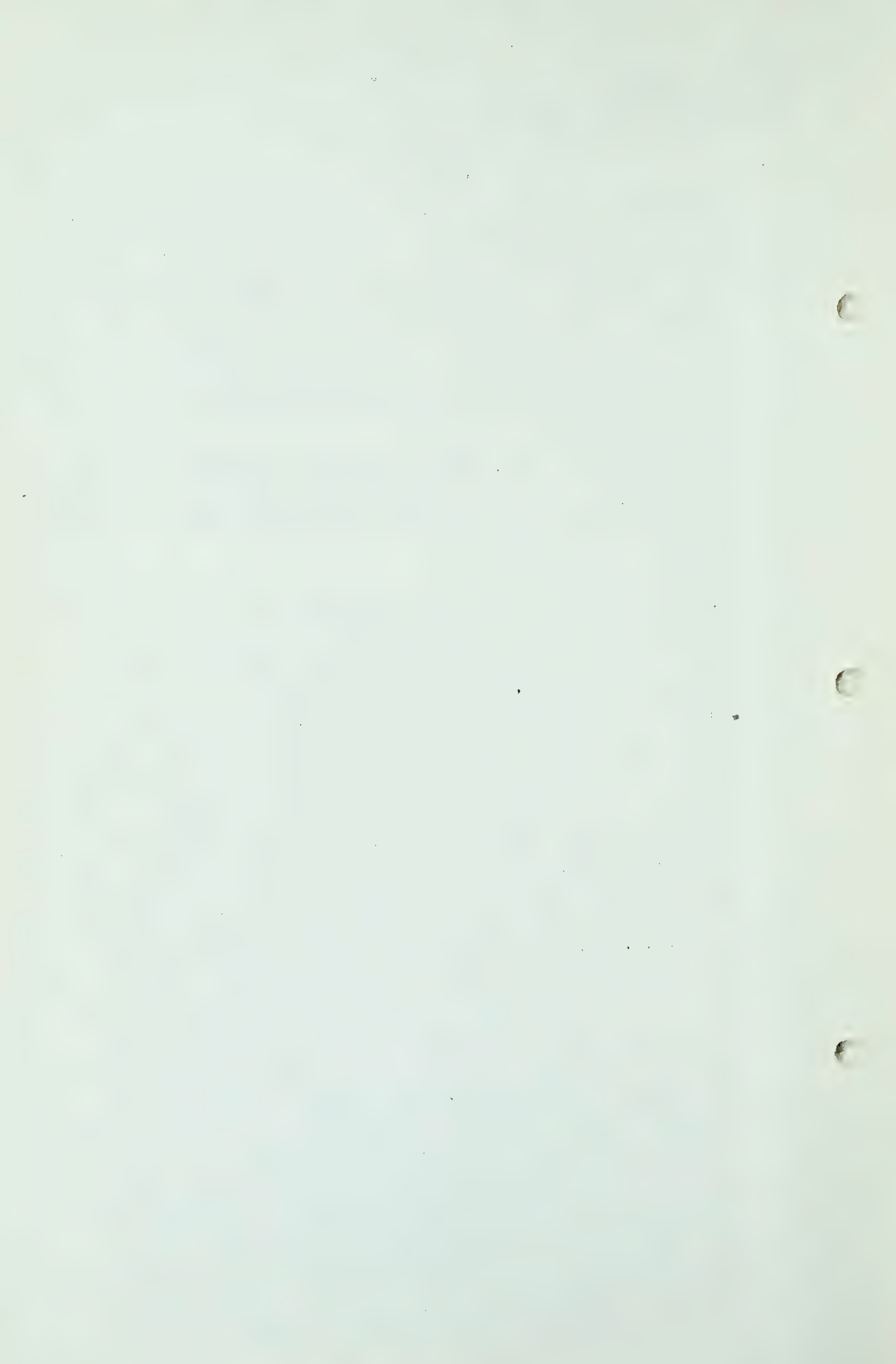
A Yes, sir.

Q You have never run into, as I understand it, cases where surplus gas is being produced, has been stored and the cost thereof included in the current rate?

A Gas is being stored in a good many places in the States, a good many fields. I would say approximately 50 storage fields are now in service in the States and it would be my view that the cost of preparing the field for storage purposes would be a proper capital item to be included in the rate base. The cost of putting gas into that reservoir.

Q Including the cost of gathering it and bringing it there?

A The cost of the gas. When it gets to that point it has been the cost of bringing it there has been included in the price at that point. So I would say that in maybe 50 spots in America the storage of gas is in my judgment a proper charge to the consumer, in those 50 places. I am trying to think, Mr. Chambers, if I can recall whether any one of them is used for the purpose of gas conservation. We were using Bow Island here, the Canadian Western, for a period of years, for the purpose of assuring a somewhat longer supply or of equal importance



T-1-5

Ralph E. Davis,
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and maybe greater importance, assuring us of a deliverability when the day came that Royalite would not be able to meet our peak load. Now there was a combined objective. The conservation was part of it and the improvement or assurance of a good service and a somewhat longer life. But generally speaking, Mr. Chambers, the cases I speak of where gas is stored in reservoirs is for the continuity of good service so that we will not have these cold days in winter when the company cannot meet its requirements. The Company uses the gas storage reservoir even if there be no gas wasted in or along its system. Take the Oklahoma Natural Gas Company. I am consulting geologist to that company. I am familiar with their operation. I have urged that company for years to have storage fields. One storage field was put into service about three years ago, a second storage field will be in service right now, this winter and there are plans for a third one. That is not the same gas that is going into the air. That is so that we will have gas close to our market and on a cold day can take care of the needs of the market even though there might be breaks in the line.

Q And the consumer pays for it there?

A That is right.

Q Currently, because it is

A That is right.

Q Because it is to his advantage?

A That is right.

Q And it is of value to him?

A That is right. I will go so far, I think you are leading to the point that if gas be conserved in Turner Valley - is that not what we are talking about?



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Q I was

A Let us get to that.

Q I was discussing the United States situation with you?

A Well go ahead.

Q You said you knew of no case and I just wanted to draw your attention

A I know then of 50 cases where gas is put into the ground in storage reservoirs, 50 or more or less, and not because it is a problem of conserving gas.

Q Where does that gas come from?

A In the case of the Oklahoma Natural Gas Company, it comes from any number of fields.

Q Do they take it out for the sake of taking it out and bringing it nearer to the market and putting it into the ground again?

A Exactly. That is it. It is like having flour in your pantry, you do not want to go to the wholesale house every morning to get buckwheat flour for breakfast. You want it where you can put your hand on it.

Q I suggest to you, Mr. Davis, that some of that gas that is stored represents excess gas from an oil field?

A There are cases. There are cases.

Q And that excess gas is stored nearer the market to insure an adequate supply to the market or a continuous supply to the market?

THE CHAIRMAN: Mr. Davis did not say that, Mr. Chambers, with reference to excess gas from an oil field. It may be true but he did not say it yet.

Q MR. CHAMBERS: I am asking if some of this gas you have been talking about previously as being stored closer

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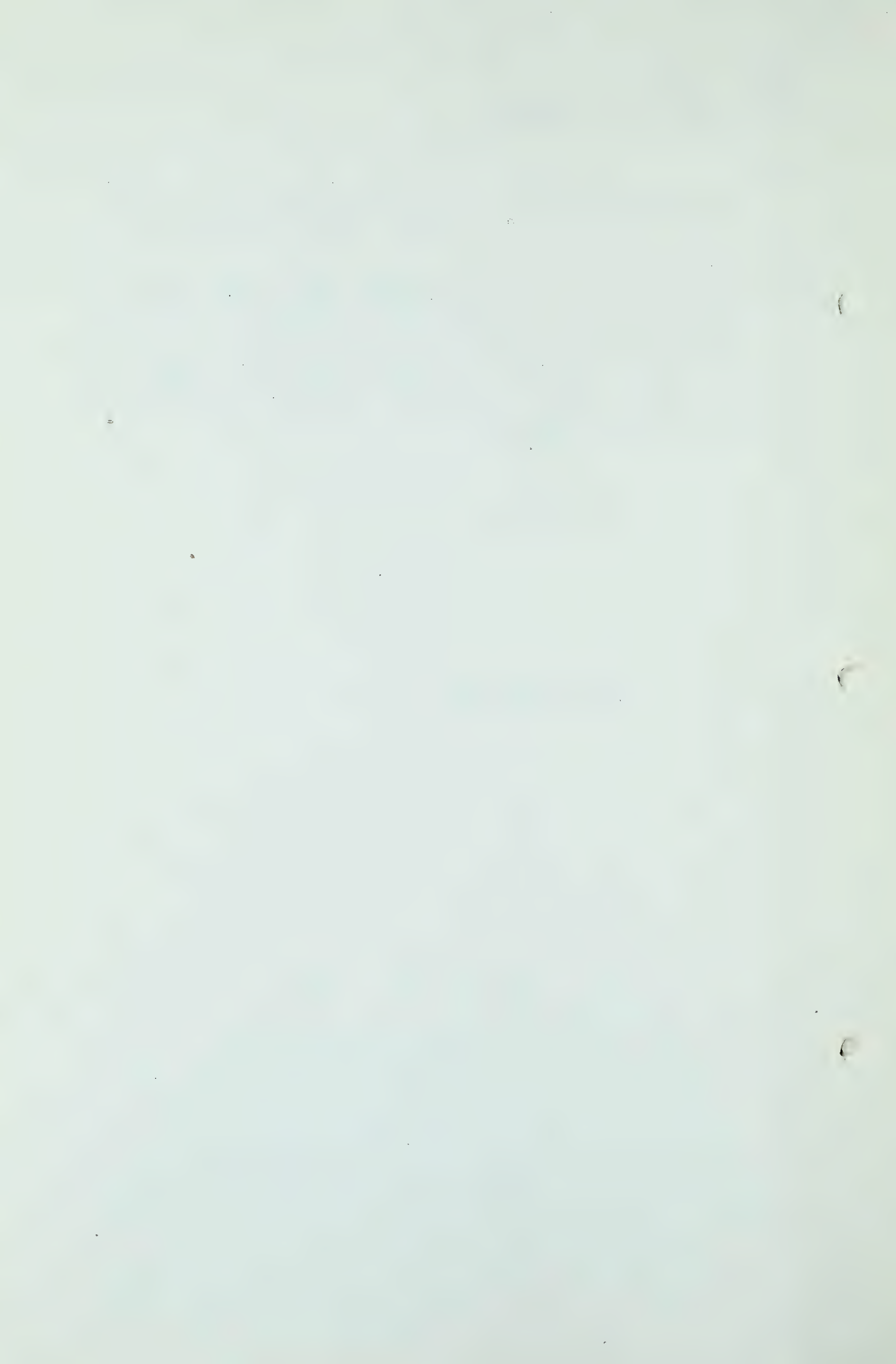
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to the market does not consist of excess gas from some oil field?

A I say that there are cases in which that is true. The Panhandle Eastern Pipeline Company delivers gas to the Ohio Fuel Supply Company in Ohio, gas produced in the Hugoton and Amarillo fields and no part of that is oil field gas. It is gas from gas wells.

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Q Yes?

A And that gas is drilled right there and in the winter goes straight into the distribution line and in the summer goes into the storage line, gas from gas wells that is.

Q Now let us get this clear, is not some of that gas which is stored near the market or along the pipe line, does not that gas in some instances come from an oil well?

A That is right, in some instances.

Q Yes, and.....

A Specifically in California, all of it in California, that gas being in storage, comes from oil wells.

Q And the cost of transporting it to the storage area and storing it is included as part of the Pipe Line Company's current charges?

A I think so, should be and is.

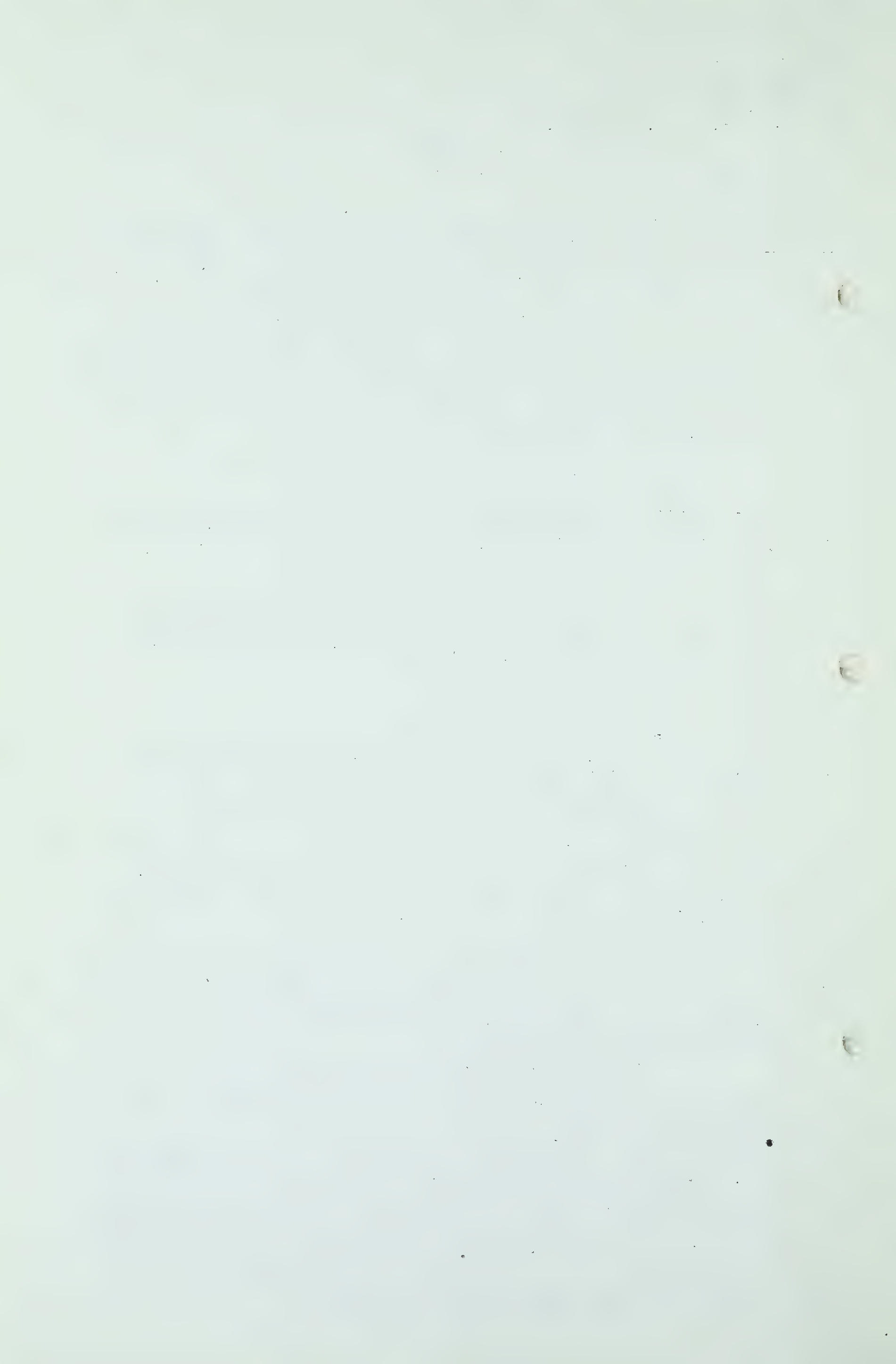
Q Now, Mr. Davis, in a part of your Exhibit 148 you tell us about the various conservation plans and storage under various conditions, and as I understand it in recent times you have given some study to this question of gas conservation, it is a matter that is up, quite a live question in the States today, is it not?

A Yes, as long ago as ten years I have addressed the Natural Gas Division of the American Gas Association on the subject of gas conservation.

I have been a conservationist ever since I was old enough to think.

Q Now, Mr. Davis, is this not so, that there is no legislation in the United States which goes as far as this Natural Gas Utilities Act of ours, in respect of fixing the price of the gas at the well head, at which the operators can sell it?

A I know of no like legislation in our States.



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Q In other words, if a man down in the United States, that puts his gas in the storage area, on his own and pays for it, I mean he at least has a gamble on it, that he is entitled to and can get whatever price the market will stand at the time he produced it?

A That is right.

Q Now do I understand correctly your reasoning to be this, or your statement, that the absorption plant in Turner Valley should not be charged for the gathering costs on the volumes, and that the gathering of the storage gas should not be charged on the current consumer rate because this question of conservation is involved, is that right? Well, let us first take this and see whether that is what you recommend; first of all, you do not think that the absorption plant should be merely charged for the use, - per M.C.F. gathering costs based on the volume used, am I right in that?

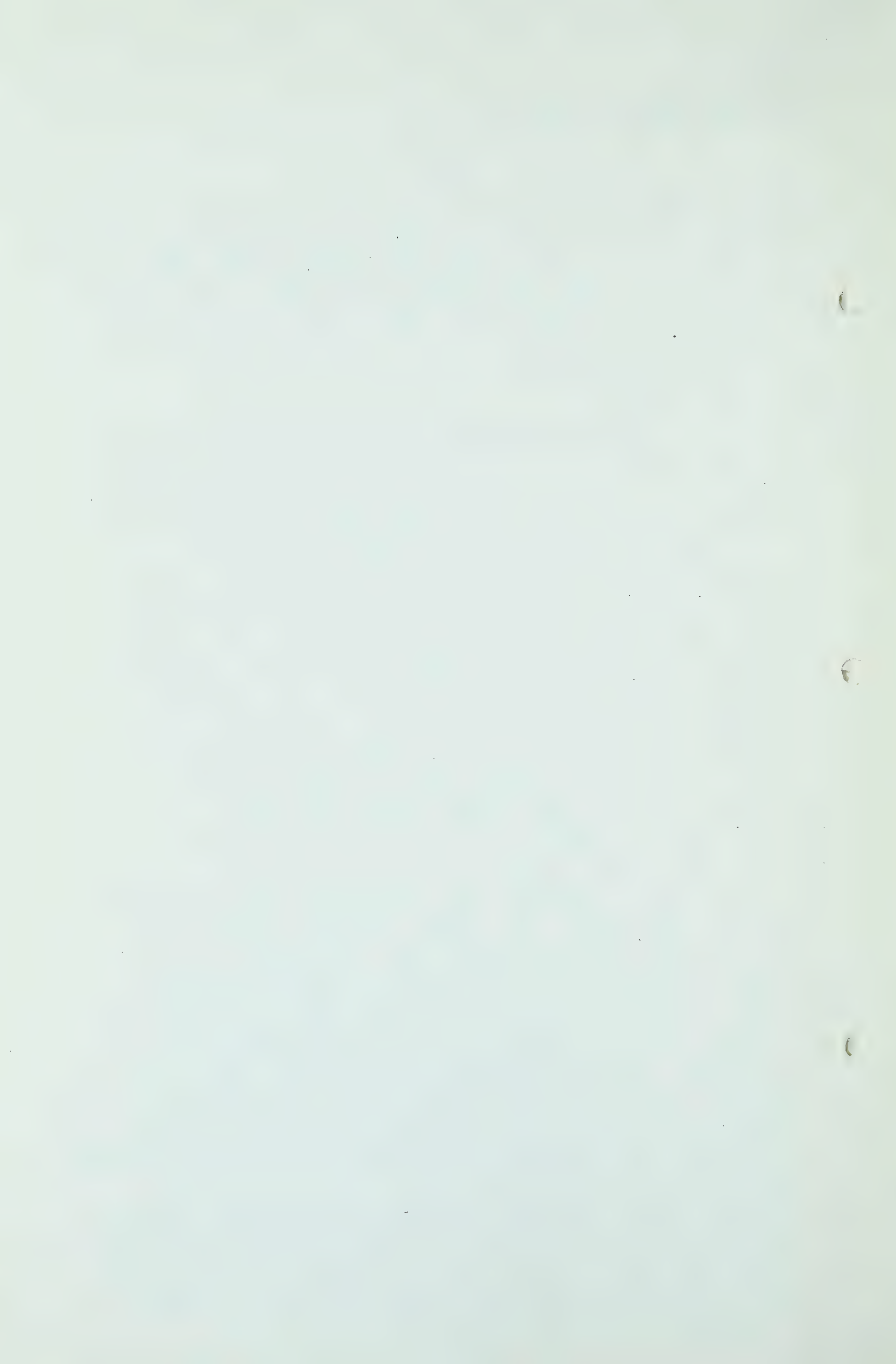
A What do you call these plants, "gasoline plants"?

Q Yes, gasoline plants?

A Well the gasoline plants were there before this conservation scheme has been put into effect. The gas or some of the gas at least, had been flowing into the gasoline plant.

Q That is right, and pardon me, I do not want to interrupt you unduly now, and I am going to deal with that later, but I am asking you, you recommend, as I understand from your Report, that they should be charged more than on a volume basis, of the volume which is used in their plant and retained there?

A Meaning that if they take out or use ten to fifteen per cent and relay but 85 or 90 per cent, I say that the operator of that plant should pay very much more than ten to fifteen per cent.



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Q Yes, and then do I understand it from your Report, Exhibit 148, you also think that the gathering of that gas which is to be stored, should not be charged in the current rate to the consumer?

A I would admit charging the consumers a proper fair share of that, not all of that, because they are not the only beneficiaries. We do not even know that they are a beneficiary, and I cannot agree that you should charge the consumer for the cost of storing gas when the benefit to them may never accrue to them.

Q No, but now assume, assume with me, that that stored gas were held in trust by a Board Order or some arrangement, for the Calgary market, would that have any effect on your opinion?

A It surely would.

Q Under those circumstances would you say that the consumers should properly pay in the current rate for those charges?

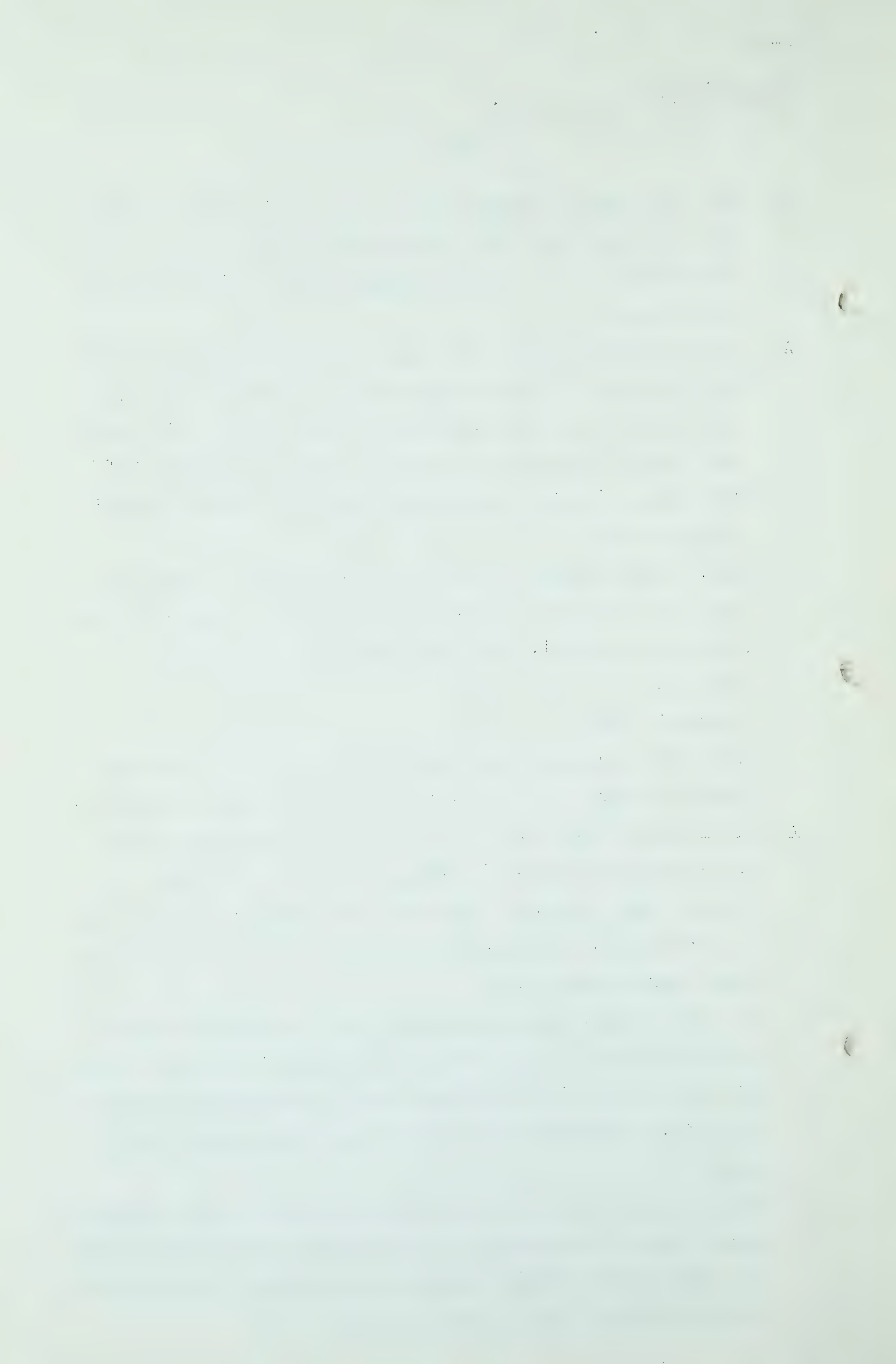
A If I could be sure that the Order of the Board would stand 15 or 20 years and not be amended by future revision.

You see when a man, you might say, loans money, you are asking the consumer to loan money on this gas to be, they would get their money back in 1960.

Q In other words, your main concern would be that the matter should be sewn up tight and no possibility of it being broken?

A If, as you say, it is positive that the consumers are going to benefit, I am willing for them to pay their proper share of that.

Q But as I understand it then, your reasoning why the absorption plant should be charged on a larger basis or per centage than the mere volume retained there, is on account of this conservation concept which you have in mind?



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A No, not that particularly.

Q Well then what?

A The benefits derived by that gasoline plant operator from its stream of gas and gasoline vapour.

Q Yes?

A Is, in my opinion, greater than ten or fifteen per cent of the total benefit. I want that point clear to you, Mr. Chambers, the operator of the gasoline plant, in my opinion, benefits to a degree greater than ten or fifteen per cent of the total benefit enjoyed by someone.

Q I was looking for that part of your report, Mr. Davis, Exhibit 148, where you make reference to that?

A That is over in the latter part, I believe.

Q Where you make reference to the gathering lines/^{all}over the country, that is what I had in mind, about the wells all over the country?

MR. STEER: It is the last paragraph on Page 12.

MR. CHAMBERS: No, that is not what I am referring to, oh yes, this is it, on page 7:

" The gas from the oil wells requires a gathering line to each well and the amount of gas produced by each well is limited by legal restriction."

And aside from what you have said here, the suggestion has been made during this Hearing, that they have wells scattered all over that area and that it is too large a gathering system, I am just suggesting that to you for what it is worth?

A You say and "too large a gathering system"?

Q Yes, I mean running around to too many wells and so on, I mean that suggestion has been made, I am not saying whether it is good, bad or indifferant, and I think the fact that you mention here:

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" The gas from the oil wells requires a gathering line to each well and the amount of gas produced by each well is limited by legal restriction.",

lends weight to that, but now all I want to get clear is whether you are referring to that as one of the reasons why all the gathering charges of repressuring gas should not be charged to the consumer, and also as one of the reasons as to why the absorption plant should pay more than it would pay on a volume basis, based on what it retains?

A I do not believe there is any connection.

Q I see. I just wanted that.

A I would like to tell you a little more of my thought about that, Mr. Chambers.

Q I will be very glad to hear it?

A If the gasoline plant operator, in receiving the stream of gas with its component gasoline bases, were to take 10% of that stream, maybe gasoline and a little vapour, and someone else took 90%, we would both agree that the division of cost should be as 10 and 90?

Q Yes?

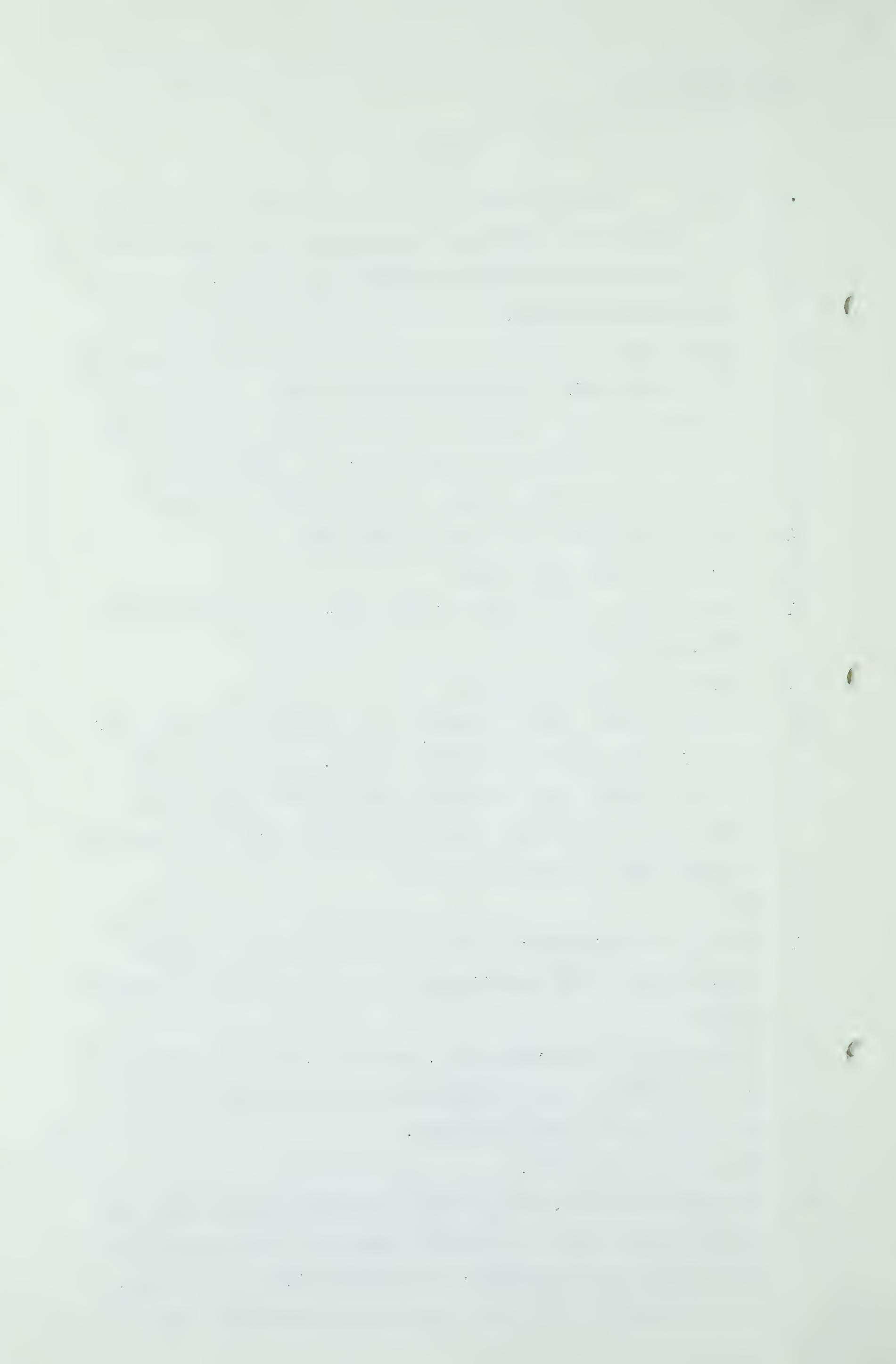
A But the gasoline plant operator takes out of that stream a portion of it of peculiar and higher value, that is recognized?

Q Well just in that connection, Mr. Davis, what he takes out of high value he pays somebody else for it, does he not?

A In that case he pays a royalty.

Q Yes, he processes it?

A He pays a royalty, but he takes out something and with the remaining 80%, what he takes out has had a value through the years sufficient to attract his capital into the venture, even knowing that the 90%, being the stripped gas, would be



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vented into the air. I would be willing to go along on a scheme that I might formulate or anyone else might formulate, that would divide that cost between the two interests, somewhere nearly according to their relative benefit, and if the gasoline operator does benefit equally with the fellow who takes the gas at that point, I would say then "Let him pay half".

Q Now, Mr. Davis.....

A That is one illustration.

Q Yes?

A In this document it is somewhat different.

Q And I propose to deal with that a little later?

A All right.

THE CHAIRMAN: But, Mr. Chambers, every time you say "a little later" you fill me with alarm.

WITNESS: Me too.

THE CHAIRMAN: For this reason, that Mr. Davis has his reservations to go back home tonight and there are several other gentlemen who have been sharpening their pencils and their swords and it is quite obvious that we will not now finish this morning.

MR. CHAMBERS: I must apologize for taking the time I did, but I did not know that Mr. Davis had his reservations for tonight.

THE CHAIRMAN: No, there is no need to apologize, Mr. Chambers. You are exercising your rights quite properly but I wanted to know how we are going to proceed, if Mr. Davis is going to get away tonight we must then sit this afternoon, and we have Dr. Katz here from Ann Arbor, and I had arranged with him a meeting for this afternoon where you gentlemen were going to be invited to sit in, to discuss sharing

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position and repressuring, and things of that kind.

MR. CHAMBERS: I do not think I will be more than another hour, I hope not, and I will try to finish in that.

THE CHAIRMAN: That is one hour more?

MR. CHAMBERS: One hour from now, and I think I can finish in that time.

THE CHAIRMAN: That will be half past eleven. How long are you going to take, Mr. McDonald?

MR. McDONALD: Not very long. Mr. Chambers has brought out most of the things that I wished to get.

THE CHAIRMAN: You, Mr. Fenerty?

MR. FENERTY: I might say fifteen minutes, I will say twenty minutes to be safe.

THE CHAIRMAN: Mr. Harvie?

MR. HARVIE: It largely depends on just how thoroughly other counsel cover matters.

There is another phase, Mr. Chairman, that I am somewhat in a quandary as to what I should do about it, I did not receive this memorandum in time to have it sent to Toronto so that I could get instructions by return mail, I am hoping to receive those instructions over the noon hour or later on this afternoon. I had no knowledge at all that Mr. Davis was leaving tonight.

THE CHAIRMAN: That is the position, Mr. Davis, is it, that you have your reservations for tonight?

WITNESS: Yes, I have my reservations for tonight, that is true.

MR. HARVIE: And maybe for tomorrow too, or some time later?

WITNESS: No, I have only the one reservation. I want to meet the obligation that I am under here, I do not

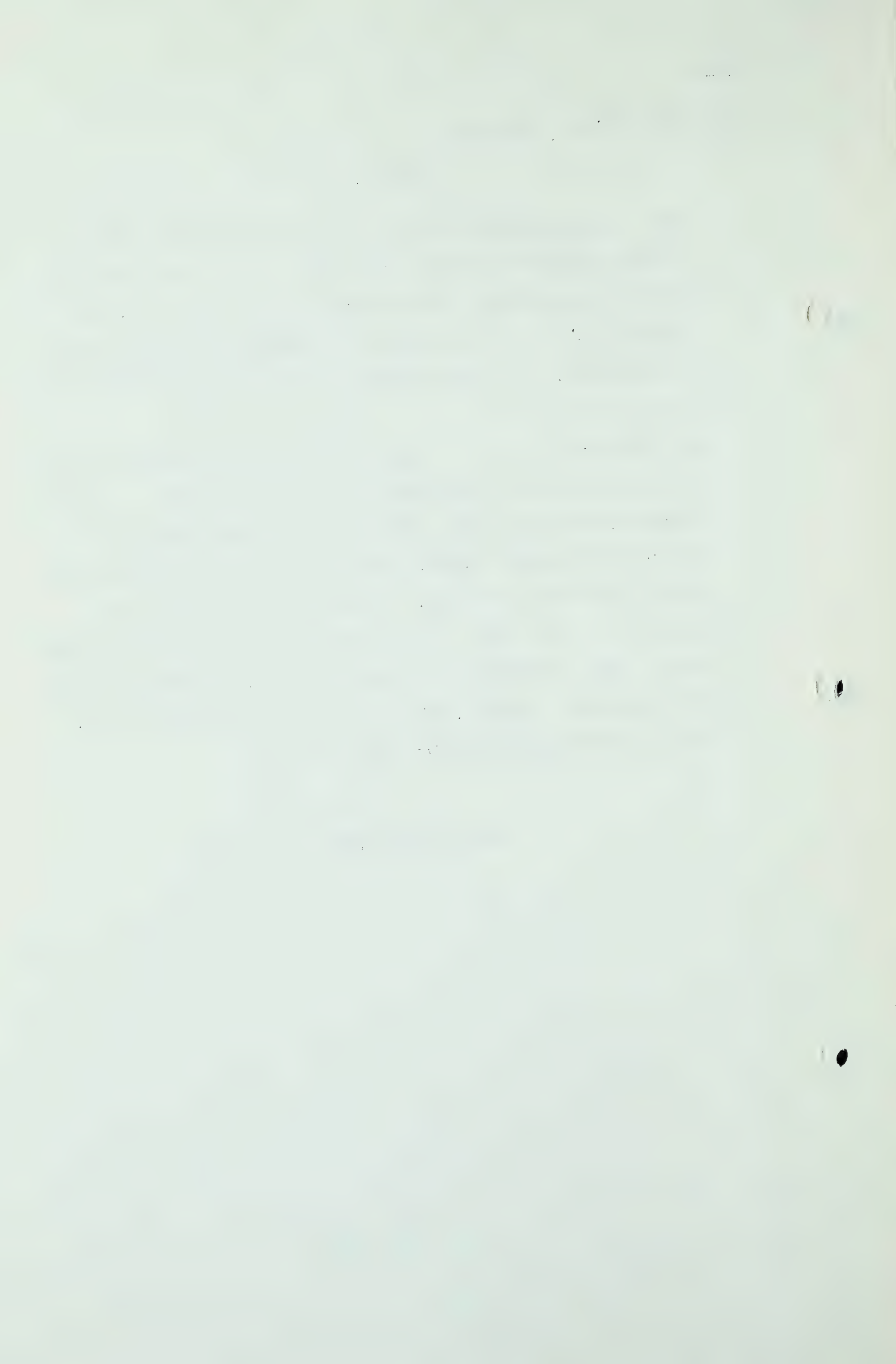
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want to run away but if you could finish with me today .
I would appreciate it very very much. I do not know
whether I could get a reservation for one day later, and
even if I could, I would like to go tonight if that is at
all possible. I have pressure on me that gets heavier with
every delay.

MR. HARVIE: We, as you know, Mr. Chairman, have
all our records in the Toronto Office and we have to receive
instructions from there, and it was only Saturday that I
received any copy of this, and it has been difficult for me
to get those instructions. I will do everything I can,
Mr. Davis, to see that you get away tonight, but on the other
hand, I do not think it is possible for me to discuss this
with you intelligently, with the information I have here,
without getting instructions from Toronto.

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THE CHAIRMAN: I am prepared to sit in the afternoon and if I do that I will expect you gentlemen to sit in an evening session with Dr. Katz.

MR. CHAMBERS: I quite agree and appreciate the Board's attitude in taking that time.

Q MR. CHAMBERS: Well I will try to hurry on as much as possible. I am coming now to what I had in mind in our discussions this morning. I refer you to Page 10 in the last paragraph and starting with the third sentence;

"I believe that in the end the Board will have to reach a conclusion based largely upon its judgment, and in reaching its conclusion the Board undoubtedly will give consideration to the fact that the depleted condition of Turner Valley has resulted from the practice of flaring the gas through the many years past,"

Let us pause there a few moments. In reaching its conclusion the Board undoubtedly - do I gather from that you think they should or respectfully recommend or feel sure ?

A All three.

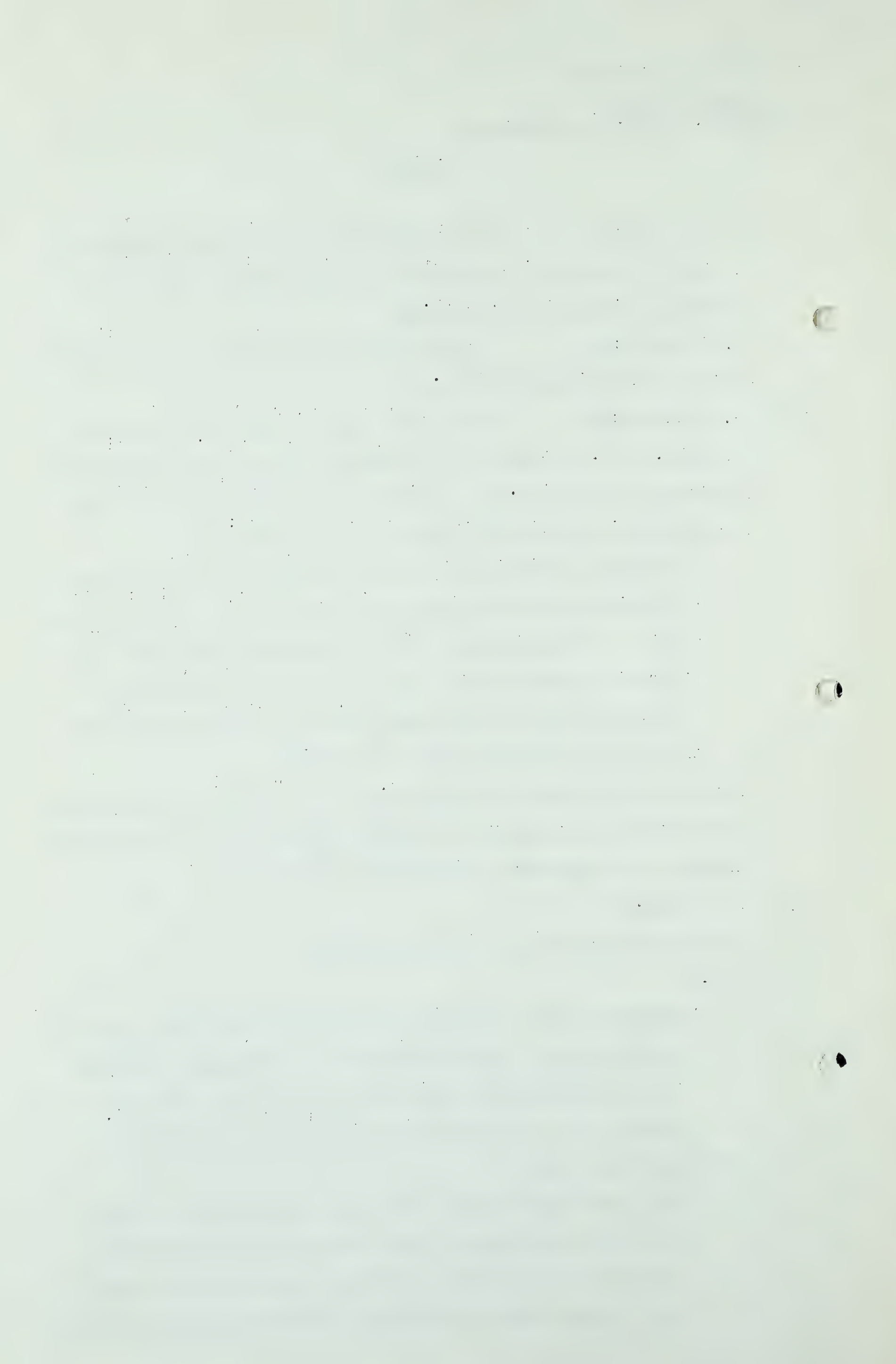
Q In any event that is your view anyway ?

A Yes.

Q "Resulting in a lower pressure so that today the cost of gathering gas and delivering it at 300 pounds pressure is substantially greater than it would have been had there been a reasonable conservation in past years".

Then you say again:

"The Board undoubtedly will give consideration to the fact that the gas has to be gathered from many wells, each producing a small quantity of gas and that this gas is sour gas and therefore substantially less valuable



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than sweet gas would be under conditions otherwise similar".

And there again as I understand it you recommend that ?

A All three.

Q THE CHAIRMAN: At that point, Mr. Davis, as I understand it the gas producers, that is in the crude zone, have no market for that gas. They had only one thing to do with it, pop it into the air ?

A I have greater sympathy for the crude producers than I have for the man who took part in liberating five hundred million cubic feet a day from the gas cap in years past. I have a little sympathy for the man who has to bring that gas up in order to get his oil up and oil is of much greater value. In other words it is a common practice to flare oil field gas.

Q MR. CHAMBERS: I gather from that that your view is that it is a difficult job that this Board is charged with in fixing this well head price ?

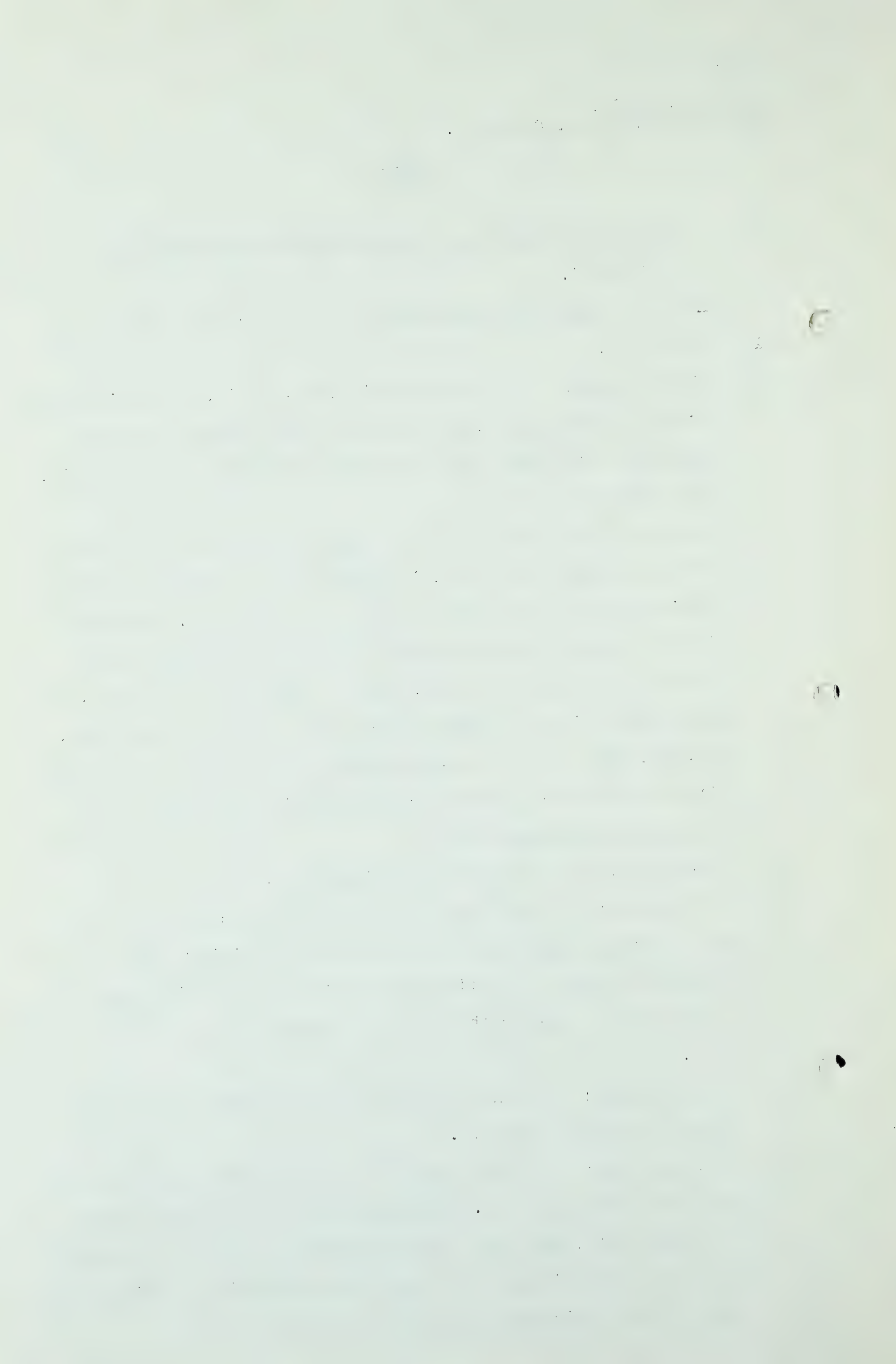
A I think it is an extremely difficult job.

Q But you recall we read together yesterday Section 72 (1A) the Board you will recall is charged with fixing a just and reasonable price no matter whether they use the investment theory or some other theory as you call it ?

A Yes.

THE CHAIRMAN: And above all I do not have to give you reasons unless I want to.

Q MR. CHAMBERS: There might be some question in that, and you will also agree Mr. Davis that since the Act was passed on March 24th, 1944, and I think you have already told us that the well owner is not a free agent in producing or selling his gas for the price that he could demand for it ?



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A No, he was a free agent for all previous periods of time. During those periods of time he never sold any gas. Now he has lost his freedom and for that he has gained a share in the market and it seems to me he is better off.

MR. STEER: I think you had better say you assume he has lost his freedom because whether or not he has lost his freedom depends upon the interpretation of the Act, Mr. Chairman.

Q MR. CHAMBERS: Would you say this, Mr. Davis, that as you view the situation, the gas at the well head is now devoted to the public service or it is impressed into public interests.

MR. STEER: That again Mr. Chambers depends upon the interpretation of the Act and I think it is not a proper question for this witness.

MR. CHAMBERS: I want to ask him what he had in mind. He comes here with an opinion and he must predicate that upon certain things.

MR. STEER: I submit this witness is not an expert in law.

THE CHAIRMAN: You can ask him to assume that.

MR. CHAMBERS: I submit he is making certain recommendations and he is weighing the pros and cons.

THE CHAIRMAN: You can ask him having made certain assumptions in arriving at that, but Mr. Steer is preserving his own as well as the position of others who may say, I have a gas well and I am sending the gas to the City of Calgary at the moment, but there is another industry setting up next to my gas well and I may send it there. Is that it ?

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MR. STEER: Yes.

MR. CHAMBERS: I do not wish to suggest that what this witness says will determine the interpretation of the Act. I just wanted to get what this witness has in his mind.

MR. FENERTY: Before my friend proceeds, perhaps in order to be fair to the witness in referring to the public interest that the witness has been talking about. The citizens of Calgary is the public interest that my friend is talking about.

Q MR. CHAMBERS: Perhaps if the witness has a chance to answer the question he will bring that out. Did you assume, Mr. Davis, that gas at the well head as produced now is impressed in the public interest ?

A Well I considered that the gas is to be delivered to whomever the Board directs it to be delivered to and that may be the people of Calgary. It might be anyone else.

Q You assume that the Board is boss ?

A Yes sir.

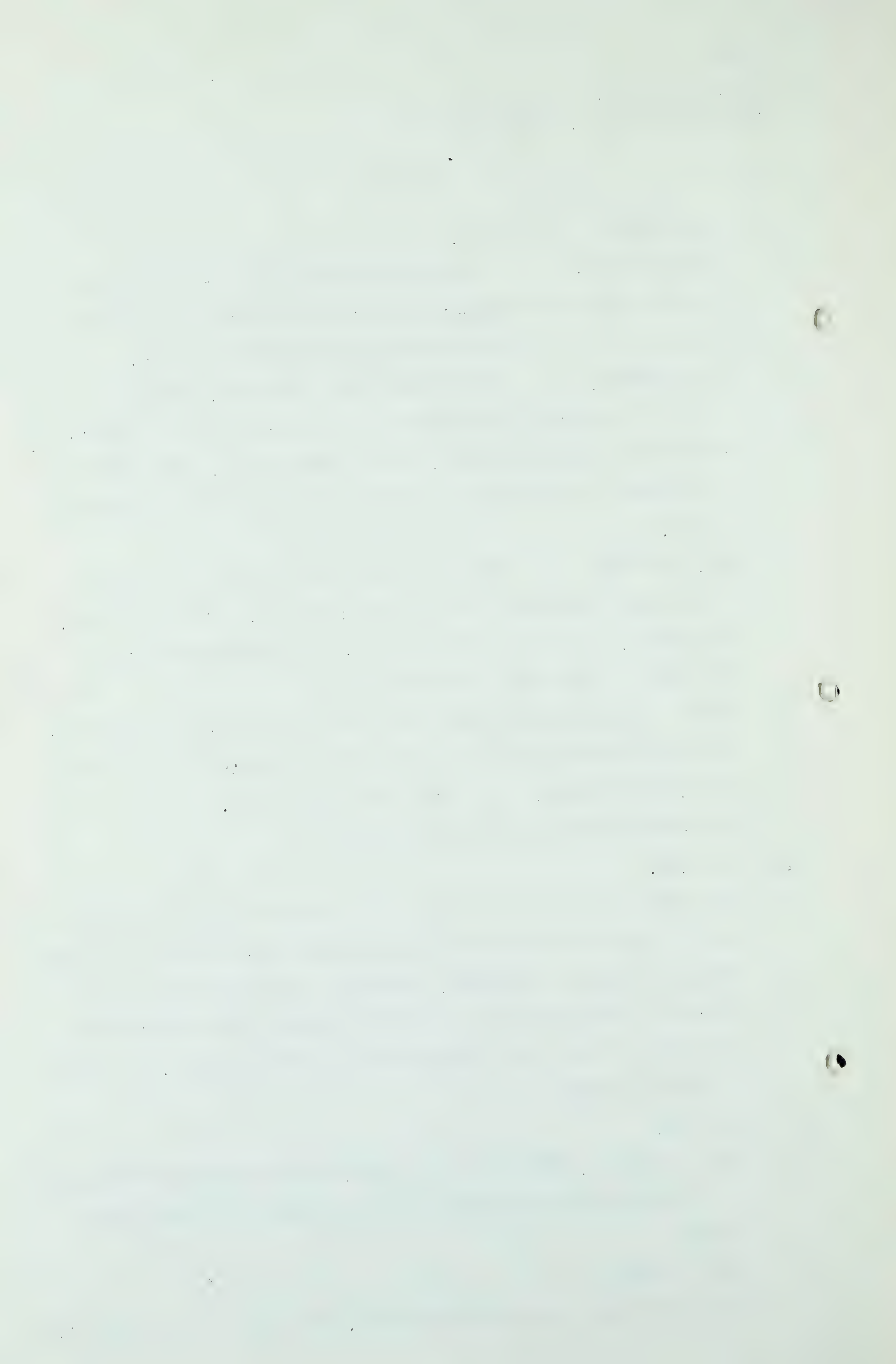
Q Well probably that is it. As I understand it, you in effect say to this Board now that it should now decide this compulsory well head price by judging, assessing and considering all the facts and circumstances of the development and operations in the Turner Valley field from 1921 up to the present. Is that a fair way to put it ?

A That is.

Q Now, Mr. Davis, this gas at the well head in your understanding, as I understand it, is subject to somebody's direction, the Board's ?

A That is right.

Q Now that is not the situation is it, or is it ? Let me put it



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this way. Is it your understanding that does not apply to the wet component of that gas ?

A I have not thought of that, Mr. Chambers, but I am not inclined to think that you could assume that the Methane is under Board control and that Ethane is not.

Q No.

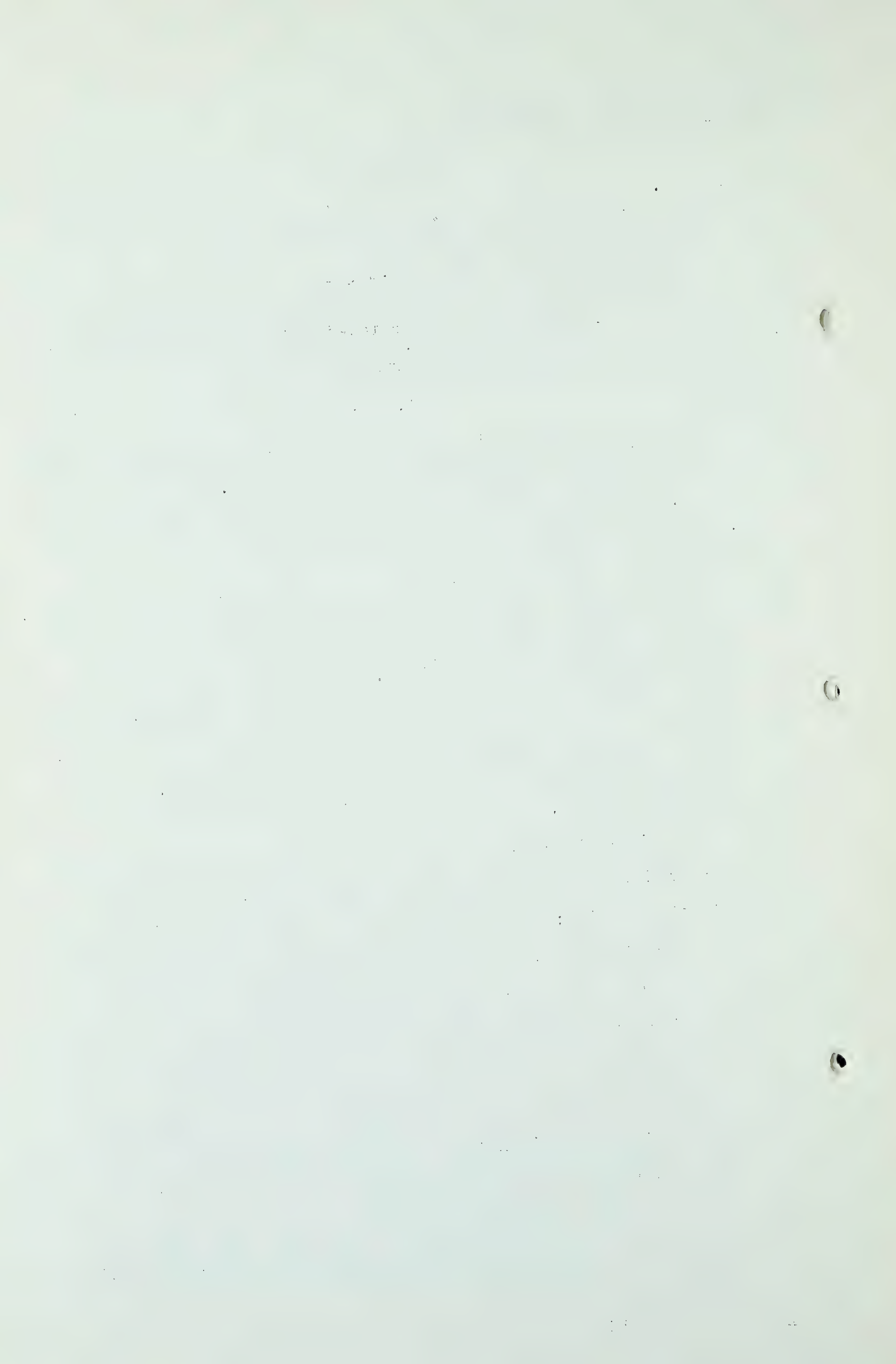
A I presume that the Board does not assume to direct the selling of the gasoline after it has been taken from the gas cleaner. I have not thought of that myself and I do not know what the Board will think about it.

Q I think you have told us that you have read the Act. Do you recall anything about that ? What I am getting at is this, that Section 71 (1) of the Act as amended in 1945, you see Section 72 (1), sub-section (a) provides for the Board fixing a just and reasonable price for natural gas in its natural state when it leaves the separator. Now then here is the proviso:

"Provided always that the price or prices fixed pursuant to any of the provisions of this paragraph shall not include any price or value of any component part of the natural gas to be extracted therefrom and sold before delivery of the natural gas to a public utility as defined by this Act or by The Public Utilities Act for distribution to the ultimate consumer; 45-31-4."

What I am wanting to get at is whether you are taking that into consideration when you are making these recommendations that are contained in your report ?

A I do not think that I thought of it at all. Now that I do think of it I do not see how it could have any bearing on my conclusion .



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Q Well will you assume with me...

A You understand now I am talking in my recommendation what I think is a reasonable price for the gas as such.

Q Pardon me, I am referring now particularly to this gathering charge that is to be made to absorption plants.

A Forgetting what I think gas is worth? Who is to pay for gathering?

Q Yes. I am now directing attention to the basis of the gathering charge. Now when you made this recommendation of 190 or in the hundred and nineties, had you that in mind or had you taken that provision into consideration that I have just referred you to?

A No sir, I have not, and I do not believe that it matters.

Q That is fine.

A In any case the Board is under obligation to fix a fair price and if they fix a fair price for the gasoline everybody will know whether or not it is fair or not in that case.

Q Will you assume with me this, that the wet component at the well head belongs to the producer or to somebody to whom he sells it. That is the first assumption?

A Yes.

Q Second, that the residue part of the gas, the rest of it is owned by somebody else say either the producer or the utility company. Well let us assume it is owned by the utility company.

A Well when the two products are travelling together in the pipe I do not know whether that is true or not.

Q Well I am asking you to assume that.

A That they are owned by two different parties?

Q Yes.

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A All right.

Q Then if that assumption is correct we have the gathering company, which is a utility under this Act as you know ?

A Yes.

Q That is carrying property for two different parties. The wet component owned by one party and the dry component by some other party or the gathering company itself. That is the position that I am asking you to assume. Now you have already told us Mr. Davis, that you have had considerable experience and are familiar with public utility matters over a great many years in the States and more than one State ?

A Natural Gas Public Utilities.

Q Now I suggest to you, Mr. Davis, that the only concern of the public utility is that it should receive its full costs for the service it renders. Do you agree with that proposition ?

A Well a public utility properly managed has not only an obligation to make money for the shareholders, it has an obligation to render a good service to the public.

Q Yes, but I am referring now to charges.

A You are referring just now to the money end of it ?

Q Yes.

A Well their particular concern there is to see they do not lose money, that they make some.

Q And I also suggest to you that in the light of your experience that what use the customer makes of that service which the utility renders or the profits that he makes out of that service is of no concern to the utility company itself. What do you say as to that ?

A Are you asking me if I think the utility company might or might not be interested in the purpose of a customer in using

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some gas. Is that the question ?

Q Unless it makes-the kind of service he takes drive the utility cost up, but I mean, assuming that you have two customers that take the same kind of a load. One makes a lot of money out of his load. The other fellow may be losing money. Now I am suggesting to you that that matter is no concern to the utility so far as the amount of its charges ?

A I follow your reasoning and I think it is right.

Q What do you say to that ?

A I said I think it is right.

Q In other words, is this not so, that the Utility Company's concern is of the impact the service it renders has on its own cost ?

A In the example you have suggested that is the case.

Q Well now then, get back to this gathering utility in Turner Valley which we have assumed is carrying the property of two different people ?

A Well that was your assumption. You asked me to assume that. Of course you understand that is not in my judgment the actual picture.

Q I am not asking you to agree with me at all. I am asking you to assume that is the case ?

A Assume that to be the case, yes.

Q And under those conditions the Utility's chief concern I suggest, other than rendering a good service is to see that it gets paid from those two customers or those two owners its full cost and by cost I am including capital charges. Now is that not a sound utility practice and the practice ?

A Well since you may assume a situation in your question, let me

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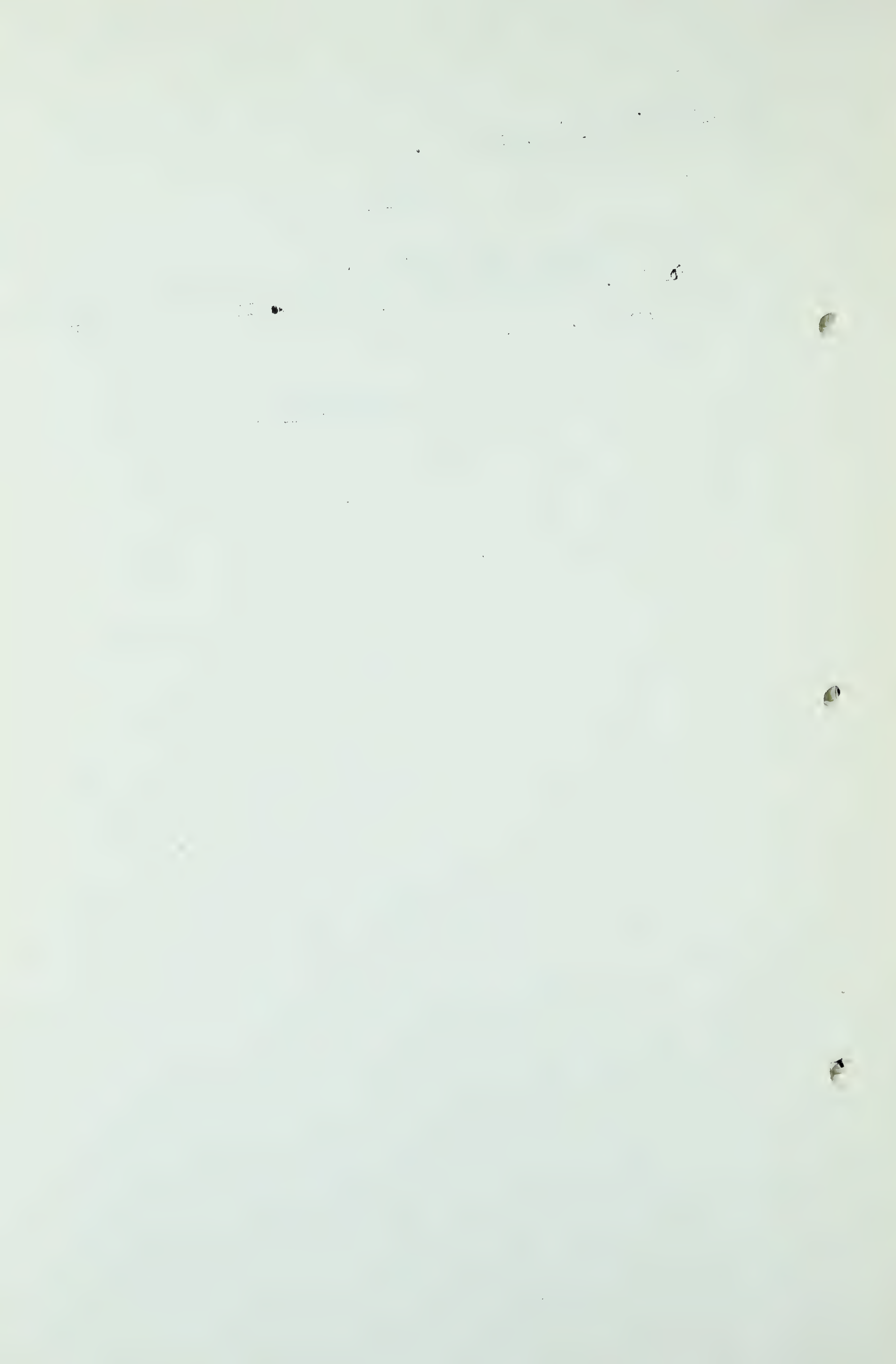
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assume something in my answer.

Q Oh yes. Any answer you give me is qualified by my assumption
given you.

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T-2-1 10.55 A.M.

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A The Canadian Pacific Railroad are concerned in rendering service and not in losing money, so they start a freight train off East with a carload of pigs, a carload of cattle, a carload of coal and a carload of ammonia and so forth. Suppose each carload ought to pay the same. If so, they might find that some of this stuff could never be shipped, the freight on it would be so high that the buyer could not pay it. I do not believe that you can say that the two products travelling through a utility line, assuming that these things are owned by separate parties, must pay their weight in proportion to their volume, in proportion to their weight, in proportion to their specific gravity.

Q And their value?

A I do not know. I am not so qualified as to be able to say just what it should be. I give my opinion what it should be.

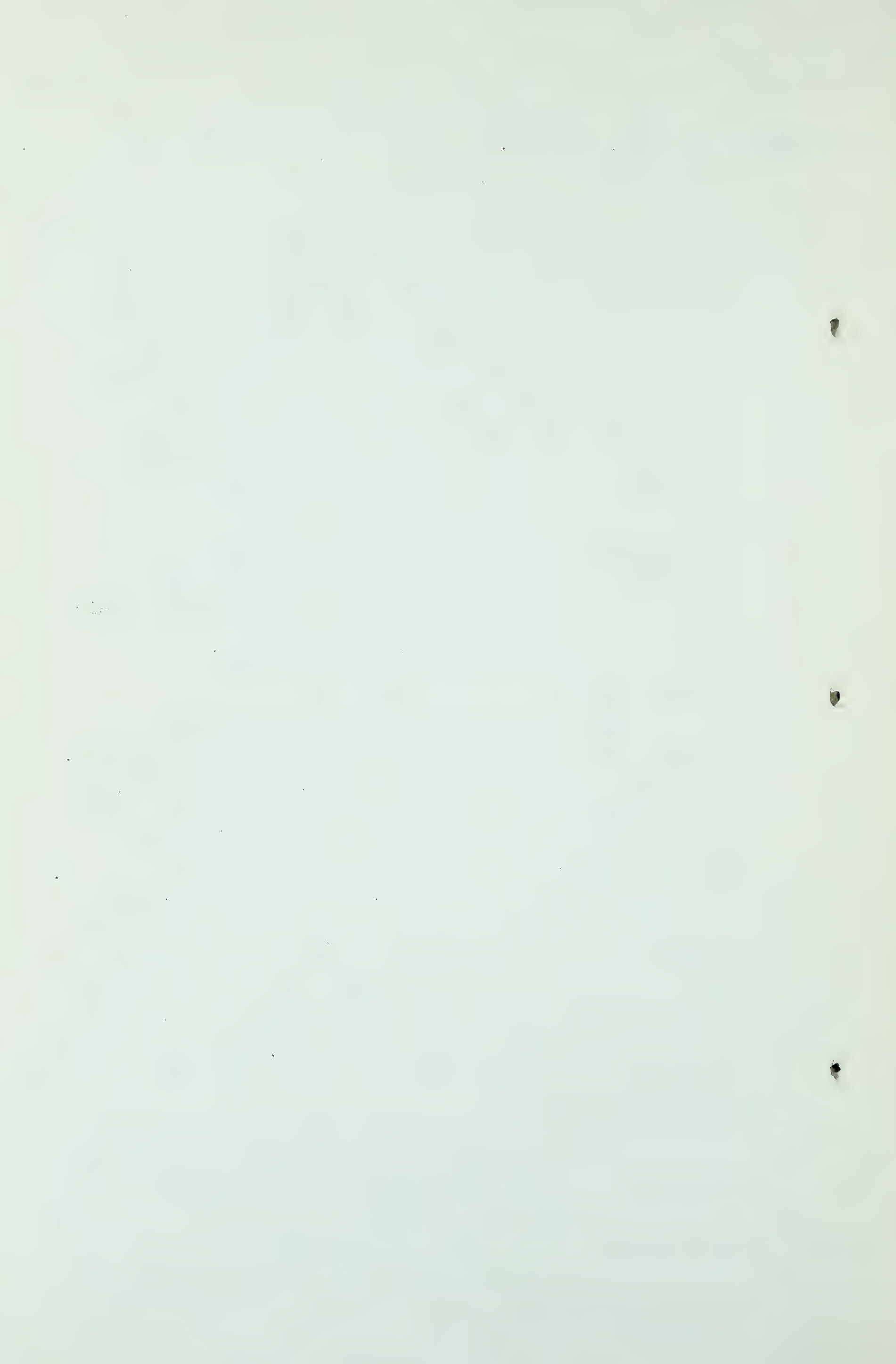
Q All those things you have mentioned, weight, specific gravity and so on and volume, do they not have an effect on the railroad company's costs?

A The railroad company, I do not know how they supervise rates in Canada but down in the States we have an Inter-State Commerce Commission and that Commerce Commission has been in business for 40-some years. They fix rates for various commodities and certainly take into account what the service is worth to the patron.

Q That is what we were talking about yesterday, the value of the service? In any circumstances the amount charged cannot go beyond the value of the service?

A That is another thing. I am pointing out to you

Q You say that is another thing? I am suggesting to you that is the same principle?



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Cross-Exam. by Mr. Chambers.

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A I do not believe the Inter-State Commerce Commission in trying to fix what the rates should be try to find out whether a dentist getting a two pound article could afford to pay \$20.00 to have it brought from Chicago to St. Louis. I do not believe they do and I do not say that anybody else bringing a two pound package that they should pay the \$20.00 also. The rates on the railroad are fixed by our Inter-State Commerce Commission.

Q That is a regulatory Board?

A A regulatory body.

The value of the product shipped is a factor in the determination of rates, not merely weight or volume.

Q Now, Mr. Davis, a railroad is also liable is it not in some instances for the loss or destruction of anything that it is carrying?

A A railroad is. And who is liable if this gas line blows up?

Q Let us just deal with the railroad for a minute?

A Yes.

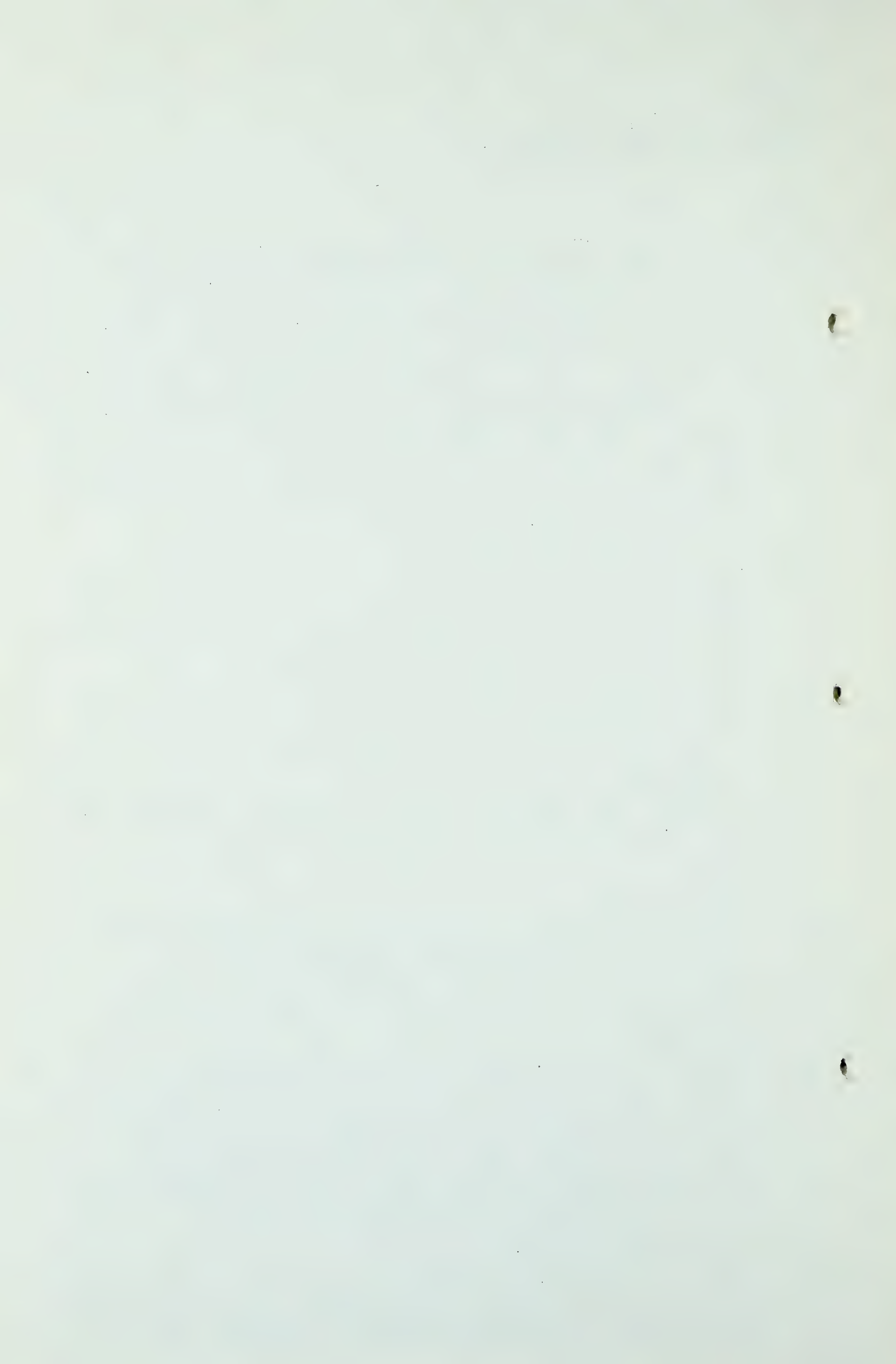
Q The greater the value of the thing that is carried does not that affect to a certain extent railroad costs?

A I should think so. But it is not the only factor as you well know.

Q Well is not this so, and I am leaving Turner Valley out for the moment, that it is not only sound utility practice but in your judgment fair and equitable that different customers receiving the same service from a utility should bear an equal proportion of the utility's costs?

A I think that is right.

Q Is it not so, Mr. Davis, that practically all utility set-ups in the United States, either statute or regulation, provide



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that the utility's charges to the various consumers shall not be discriminatory?

A I think that is right.

Q Is that not one of the reasons, Mr. Davis, in your judgment, why regulation was introduced in the United States in the early days?

A I think that is right.

Q To prevent discrimination?

A I think so. That is one reason.

THE CHAIRMAN: I am going to adjourn just long enough to phone Dr. Katz, only a few moments.

(At this stage there was a short adjournment.)

.....

THE CHAIRMAN: I have arranged, tentatively, a meeting with Dr. Katz for a quarter to eight this evening and that will be subject, of course, to when we get through with what we are doing. But tentatively at a quarter to eight. I do not know whether you will be particularly interested, Mr. Steer, but I want to discuss with Dr. Katz the matter of the sharing position and the question of repressuring. Those two items.

MR. STEER: Yes, I think that will be all right, subject to your approval.

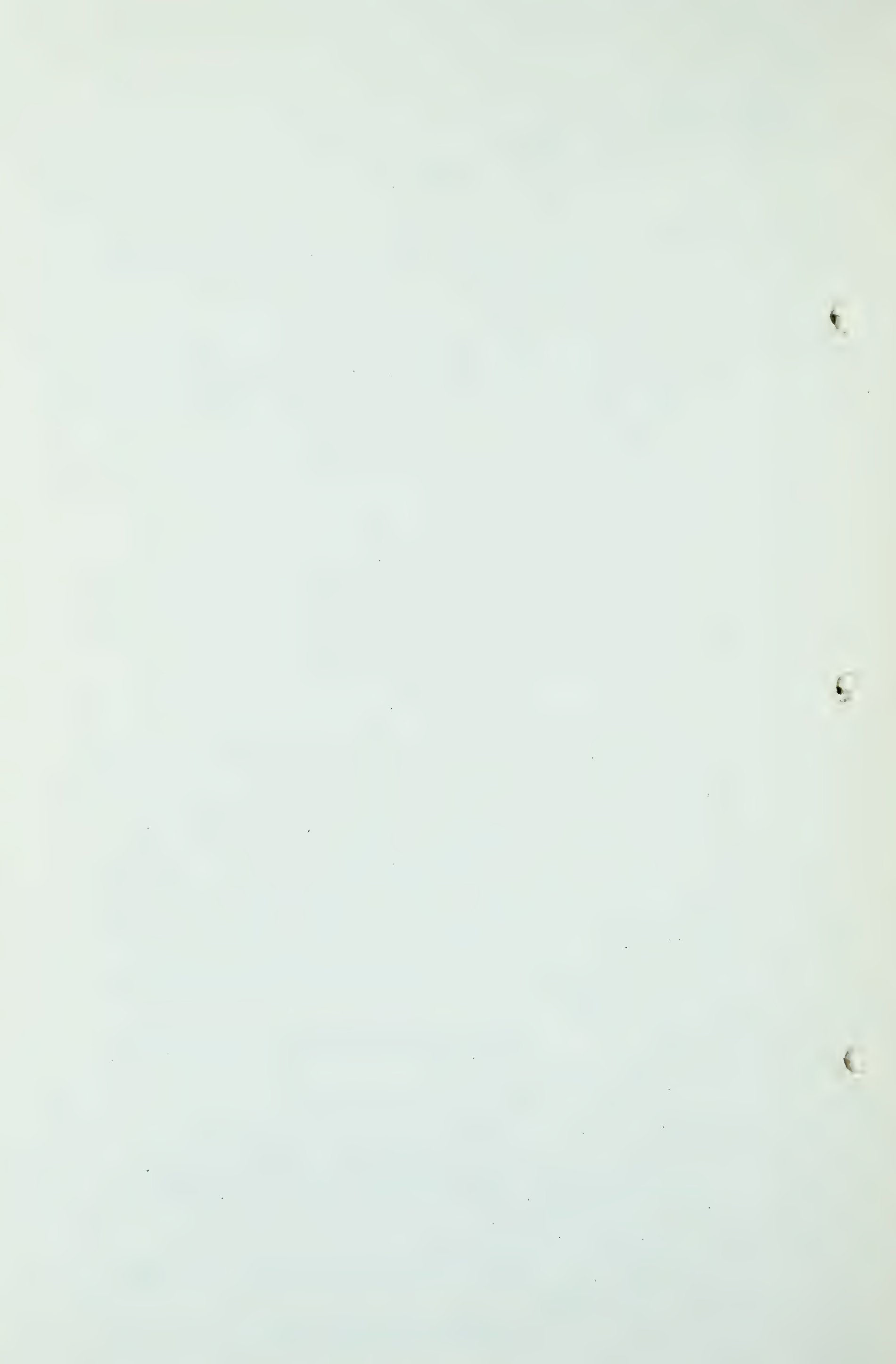
MR. BLANCHARD: Where is the meeting?

THE CHAIRMAN: In the Conservation Board office.

MR. STEVENS-GUILLE: Will that deal with when we should start re-pressuring?

THE CHAIRMAN: Whatever you gentlemen wish to raise in that connection.

MR. STEER: I suppose if we get through here early



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this afternoon we can get started earlier.

THE CHAIRMAN: That is why I said tentatively a quarter to eight, depending on when we get through this afternoon.

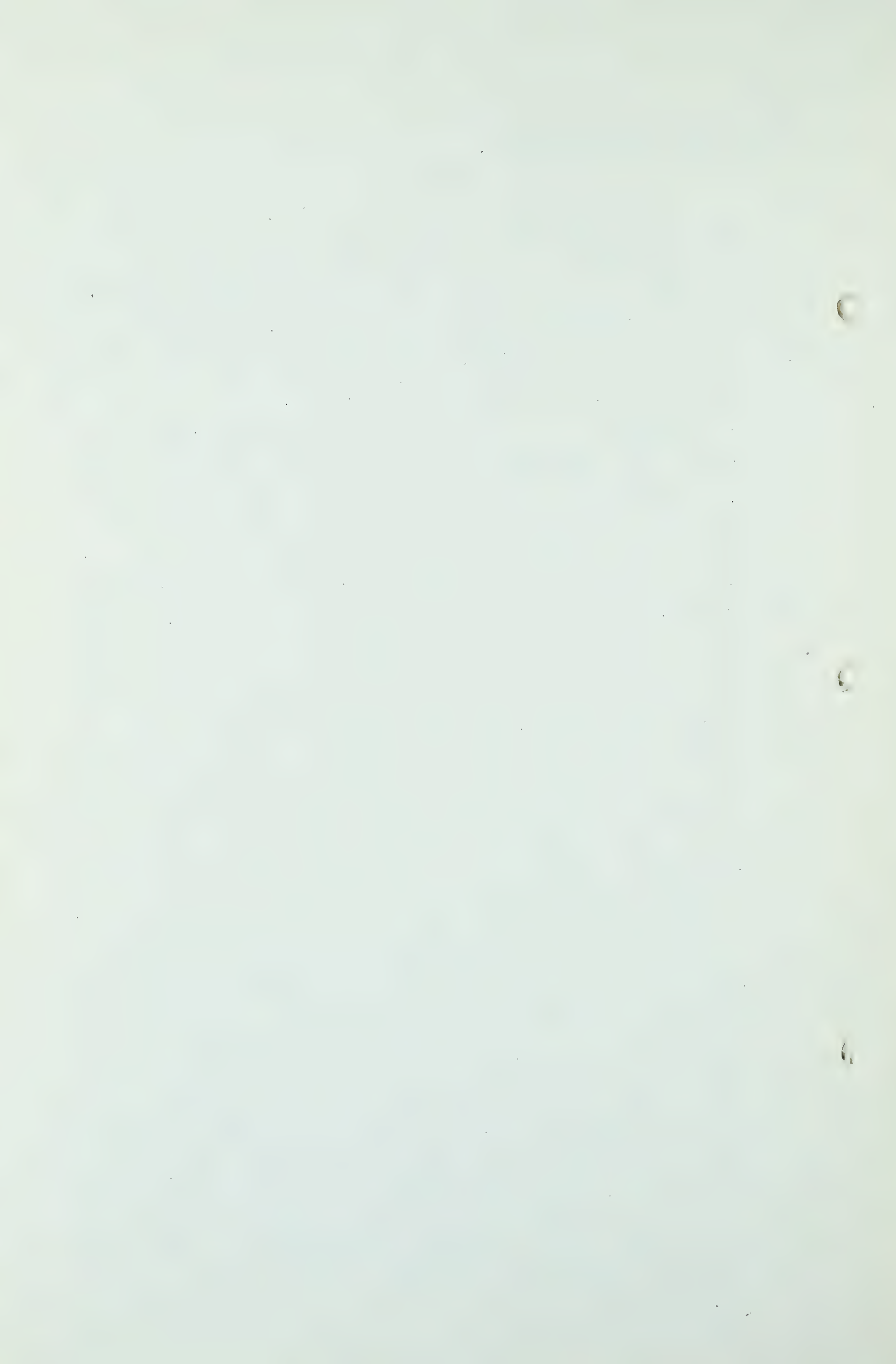
MR. STIER: I think, Mr. Chambers, after the recess might finish pretty fast.

Q MR. CHAMBERS: Is it not a fact, Mr. Davis, that the cost to this gathering utility company for carrying wet gas is no greater than the cost would be for carrying the same quantity of dry gas, from the same wells of course?

A It is so close at least I would say there is no difference.

Q At page 12 of your Report you state: "I have given consideration to the problem of proper allocation of costs as between the natural gas and natural gasoline businesses. So far as the British American Absorption Plant is concerned, the capital of the proprietor was committed to that plant and its gathering lines before the present scheme was proposed. There seems to be no good reason why the effect of the scheme should be to relieve the B.A. Company of the costs to which it had already been committed to any extent, let alone to the extent of 90% of such costs as proposed by the company." Then on page 13 you go on to say that: "Similar considerations apply to the Royalite Absorption Plant and to Madison's Gas System," but you do make this qualification, "that some at least of the company's expenditure was for the purpose of insuring continuity of supply of gas to the Canadian Western system." You have in mind there what you have already told us, I take it, that since 1925 the Gas Company has relied on the Royalite and the Royalite has undertaken to supply gas to the Gas Company for its market, is that right?

A That is right.



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Q Now is it not a fact, Mr. Davis, that there was no absorption plant in operation in Turner Valley between 1925 and 1933?

A I think that is right.

Q And was not the matter of the wet content in the gas supplied by Royalite to Canadian Western a matter of some concern to the Gas Company or the Canadian Western prior to 1933?

A Was it a concern of the Gas Company whether Royalite stripped the gas of its gasoline content.

Q Yes?

A I can only answer that from this standpoint whether or not I think it should have been a concern. I do not know that.

Q Well, what would be your own opinion?

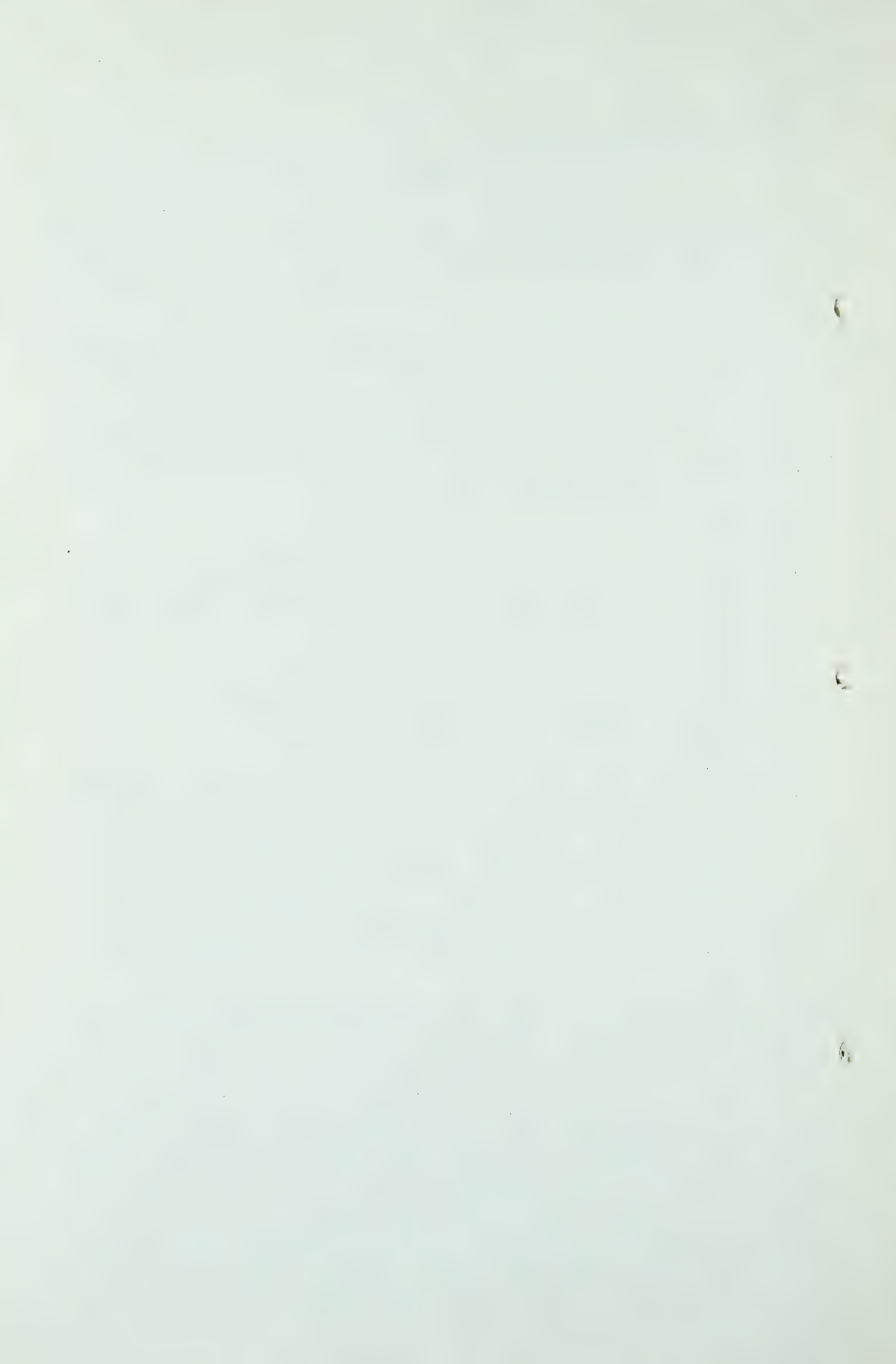
A Well in any case they were scrubbing the gas prior to 1933 and have scrubbed the gas from the beginning.

Q Yes?

A Now we are just talking about taking out the gases. Taking the gasoline out reduces the value of the gas so that after you take out these richer hydrocarbons you are serving to the Gas Company and through it to its consumers a leaner gas. I would say that the gas Company had a reason to be interested.

Q I am suggesting to you, Mr. Davis, that they were interested for this reason - or if you do not know, I am suggesting to you as an engineer that they should have been - that there was a possibility that the gasoline would condense out in the Gas Company's own lines during the colder winter months?

A Well they had been operating for some time, as you have known prior to 1933 they had been able to meet that problem. Incidentally, prior to 1913 no one ever took gasoline out of a stream of natural gas. The natural gas service in



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the East began about 1885 and from that year until 1913 gas streams carried the natural gasoline component and pipeline companies and gas companies met the problem by having at places along the line where the line came down into a valley a trap to collect the fluids and those fluids were withdrawn, moisture, gasoline, etc.

Q Are you suggesting that that could have been done or could be done now in any event by the Gas Company in handling this gas from Turner Valley?

A Well you are asking me about the concern of the Gas Company prior to or at about the time, 1933.

Q Yes?

A Now at that time they apparently were getting along handling their problem. I know that moisture in the pipelines here has been a problem even since 1933 and even since 1943.

Q Is it not so, Mr. Davis, that the gas in Turner Valley has gradually become richer so far as the wet gasoline content is concerned?

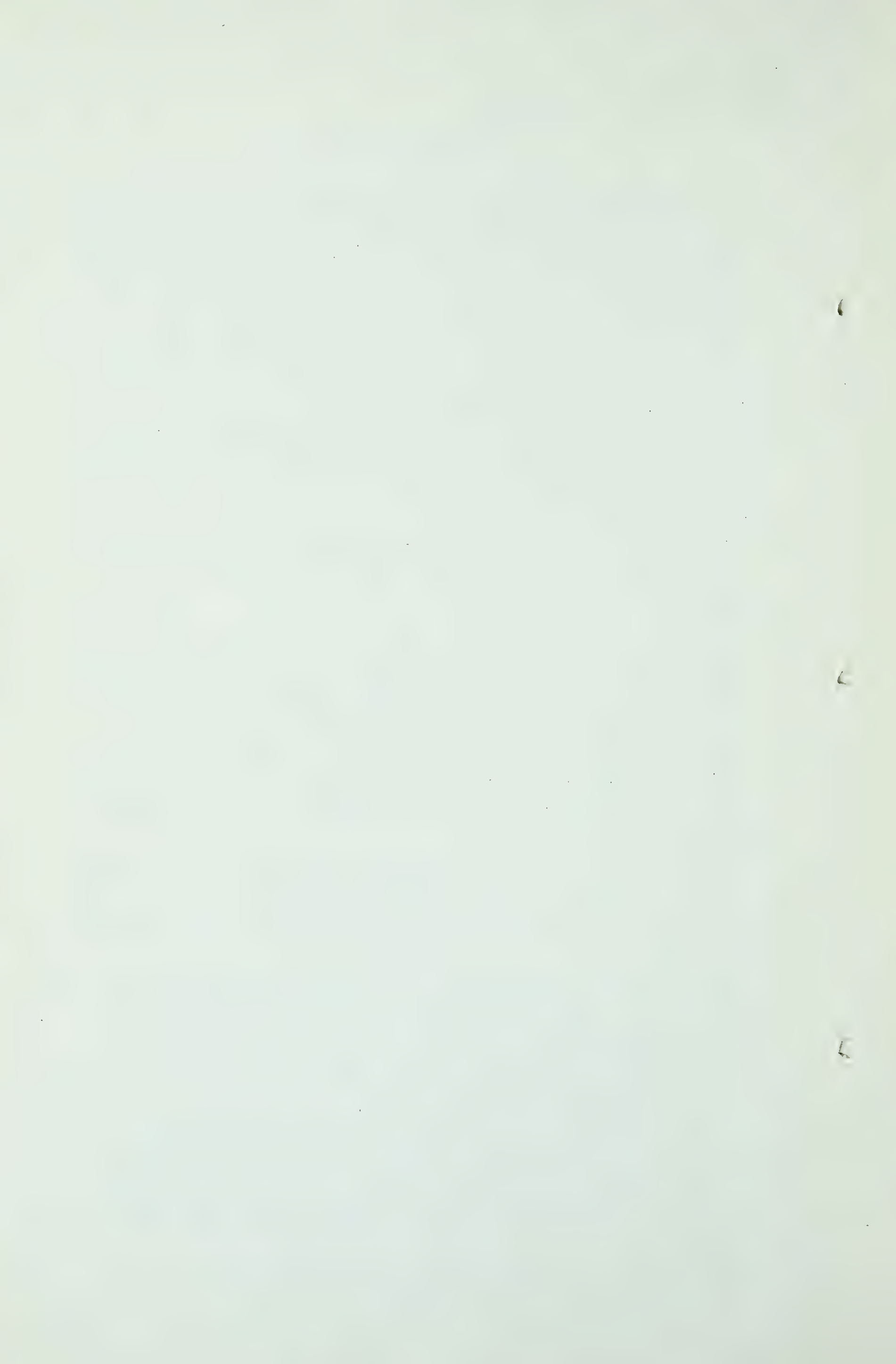
A I believe the evidence in this case shows that the gas from the gas cap wells has increased in richness. I believe that is true.

Q And is not what we call tail gas or the natural gas that comes out of the separator at the crude wells, is not that richer than gas was back in 1931 and prior?

A There was not any such gas in 1931.

Q I know but what I am getting at is is there not more wet content in that crude well gas than there was in the gas, no matter where it came from, in Turner Valley back prior to 1931?

A That may be so. I have not the figures in mind.



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Q Is this not so, Mr. Davis, that at the present time it is absolutely necessary for the wet content of the Turner Valley gas to be removed so as to render the gas fit for consumption in the Calgary market?

A Yes, I think it is essential to good operation whether the moisture be moisture present in the gas as it comes from the separator in the field or whether it be moisture gathered in going through the scrubbing plant, in either case that moisture ought to be removed.

Q I am talking about the gasoline content not the moisture content?

A You are not thinking of the water?

Q No?

A Well I was thinking of the two combined.

Q Well, can you deal with the situation so far as the gasoline itself is concerned, the gasoline content of the gas that comes from the separator at the well head? I am suggesting to you that that well head gas, aside from any question of sulphur, cannot safely or properly be distributed to and used in the Calgary market without having the gasoline content removed.

(Go to page 5525)

C-3-1 11.15 a.m.

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- 5525 -

A Well my impression is that it would be safe and suitable if we could eliminate the moisture, the water content, not the gasoline. Let the gasoline stay in the gas, it would be a richer gas. I know of no reason why it would be dangerous or so affect the service as to render it impracticable. In fact the service was running many years on that basis, so I can hardly see why it should not longer be done.

Q Is it not standard practice throughout the United States and Canada that regulatory bodies or some other bodies will not permit of gas being marketed through a fuel market, that contains a gasoline content as high as that which the Turner Valley gas contains?

A If that be the case.....

Q I am asking you if that is so?

A No, I think not. I think it is a fact that the regulatory bodies have never ruled that way.

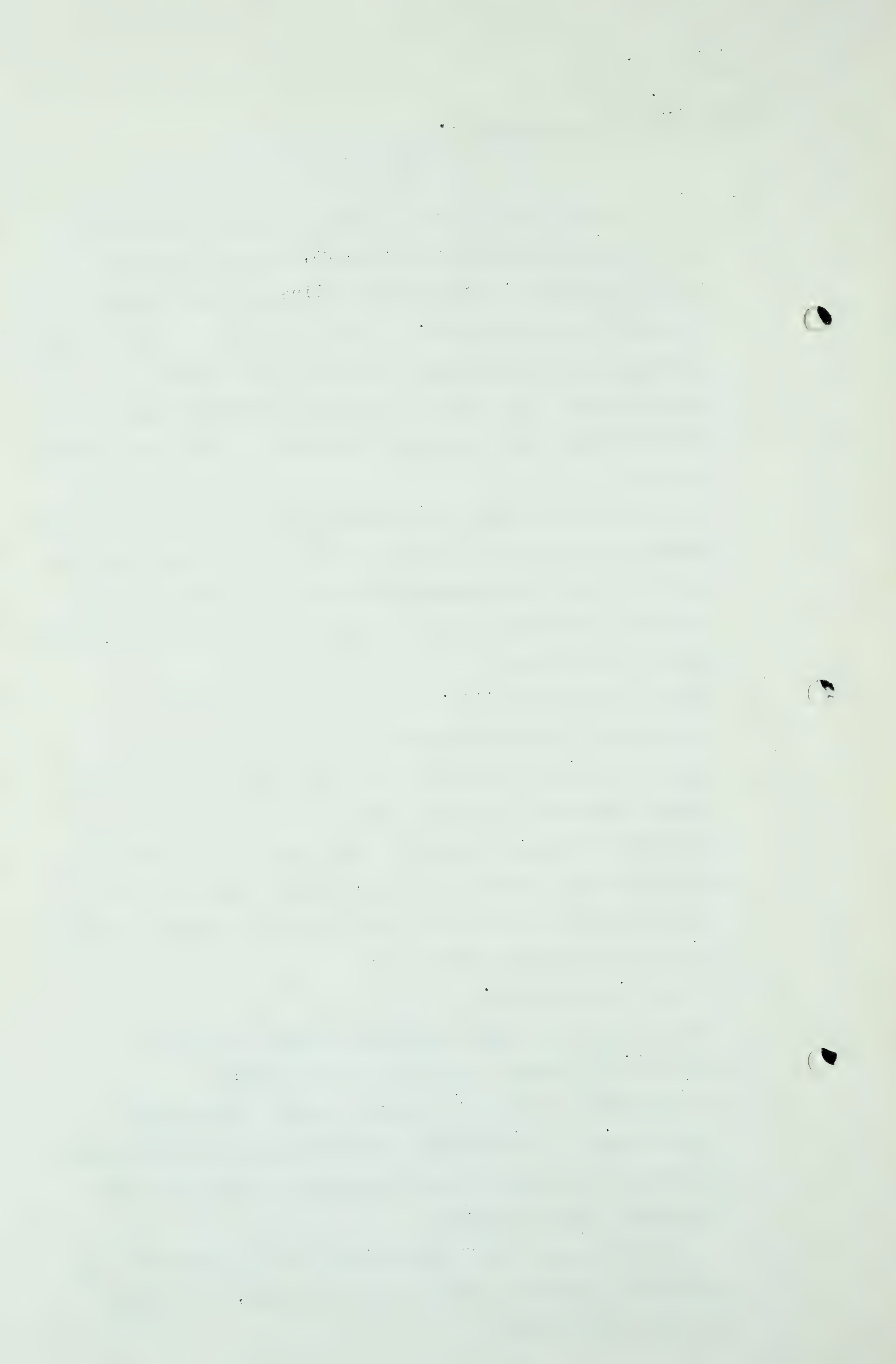
Q And there are then, I take it, many places in the United States that you know of, that gas, natural gas, is being delivered to the fuel market with as high a gasoline content as the Turner Valley gas now has?

A I think so, I think so.

Q Have you any particular knowledge of what the gasoline content is, I presume you must have some idea?

A Well I cannot recall the figures. I have had occasion to look at them. You remember my telling you yesterday about the city of Amarillo having a gas service before any pipe lines were built elsewhere?

The gas going into that service is, the gas going into that service was not stripped of its gasoline, at least in its earlier years.



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Cross-Exam. by Mr. Chambers.

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Q Well, Mr. Davis, perhaps I can sum it up this way, do you suggest that this Turner Valley gas, with the gasoline content removed, is of less value or use to the Gas Company than if the product, if the wet content, had not been removed?

A You are saying "to the Gas Company".

Q As the distributor of gas to the market, I will add that?

A Bear in mind the Gas Company in selling gas will sell more if the gas be lean than they will sell if the gas be rich. Certain gas companies have actually diluted their gas in order to sell more M.C.F. I say to you that the customer would benefit if you would leave the gasoline in.

Q You mean the customer in Calgary?

A Yes.

Q And can you tell me whether or not the Gas Company here knows of these things, have you ever talked these matters over with them?

A No, I have not.

Q You do not think there would be any danger?

A I do not.

Q To the customer?

A No, I think not. For too many years they operated that way before they knew how to take gasoline out, from 1885 to 1913, in those years.

Q Now if the gasoline were removed, - well, take it if it were not removed, would that reduce the calorific value of it as fuel, is that affected by the removal of the gasoline content in the absorption plant in Turner Valley?

A You are not interested in my giving an accurate answer?

Q No?

A If you are, I would have to give it later.

Q No?

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- 5527 -

A It might be as much as 10%, I do not happen to know but I think it would be on that order, maybe a little more or maybe a little less.

Incidentally, the last contract which I have had occasion to work on, a contract in the making and now a completed contract, the seller had the privilege of removing the gasoline, the privilege.

Q Yes?

A But the buyer did not require him to remove it.

Q What case is that you have in mind?

A That is the Michigan-Wisconsin Pipeline Company, which I referred to in my submission.

Q In that case did the absorption plant pay a 20% royalty, or any other per cent, to a royalty holder or anyone else?

A In that case probably three-quarters of the gas will come from wells owned by the owner of the gasoline plant, and the gas delivered into the Phillips Petroleum Company's gathering system purchased from other producers, is purchased as wet gas and no separate royalty is paid and no separate price is paid.

Q But it does pay something for the privilege of taking it out, and what is that amount?

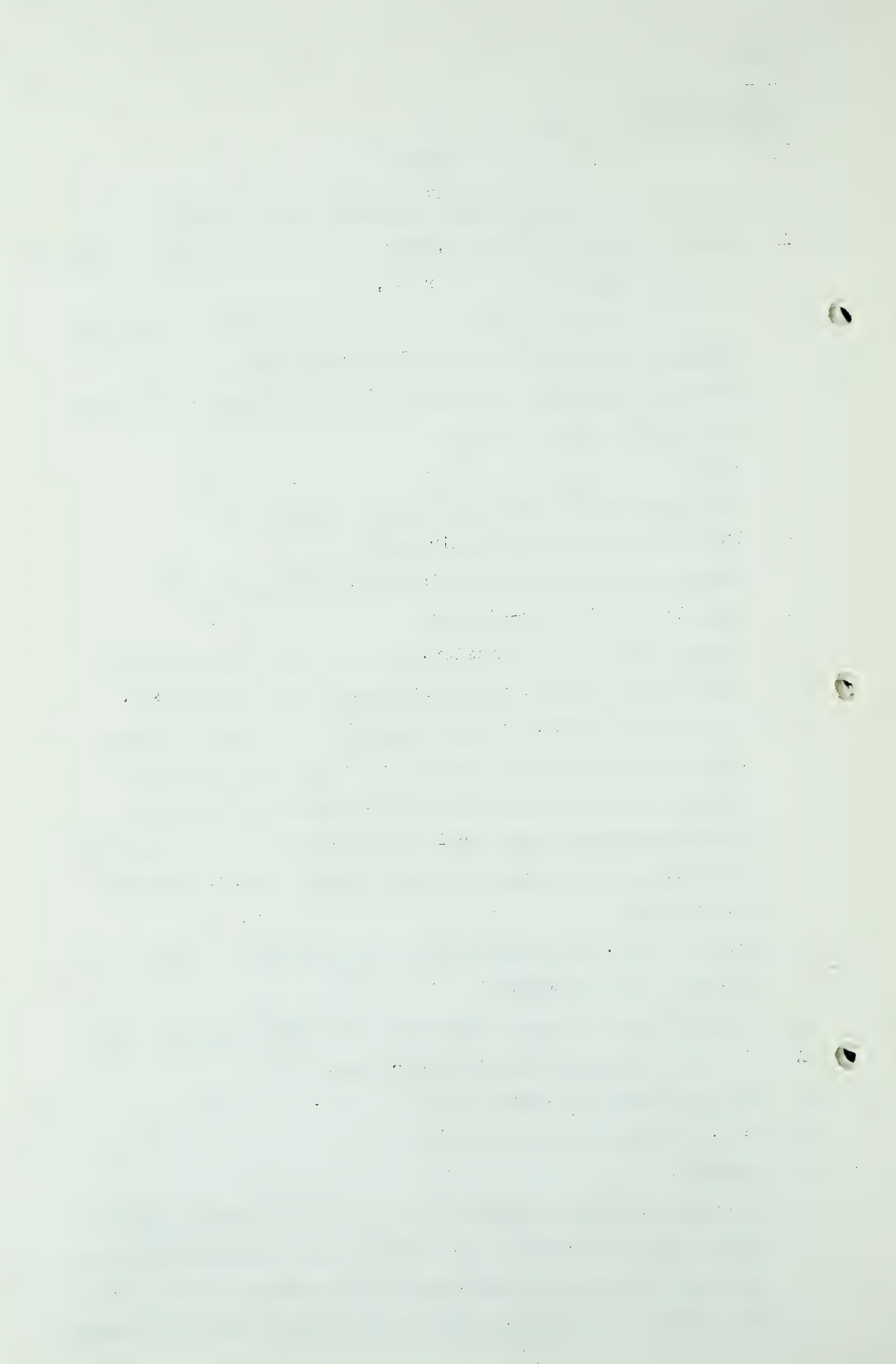
A It is not named in the contract. They simply agree to pay at the well head a price for the raw gas.

Q Yes, and then they own it all?

A They own everything in between.

Q I see?

A The decision, Mr. Chambers, as to whether a gasoline recovery plant will be installed on a natural gas pipeline system, as far as I know, it is always made on the basis of whether or not it will be a paying proposition from the gasoline recovery



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- 5528 -

standpoint. They do not put these plants in merely to accommodate the buyer of the gas. They put them in to get a little more money out of the picture.

Q You, without taking time to look it up, my recollection is, Mr. Davis, that the Royalite Company in its contract with the Gas Company, was bound to deliver merchantable gas, do you recall that?

A Well, whether they were or not, that is assumed.

Q I see, and if the Turner Valley gas, with the gasoline content, were not merchantable, I say "if", then Royalite would be obliged to remove it to serve the Calgary market?

A They would be obliged to make the gas merchantable.

Q Yes, so the question then boils down to this, does it not, whether or not the Turner Valley gas has become in its natural state, unmerchantable in the Calgary market?

A I believe that, Mr. Chambers.....

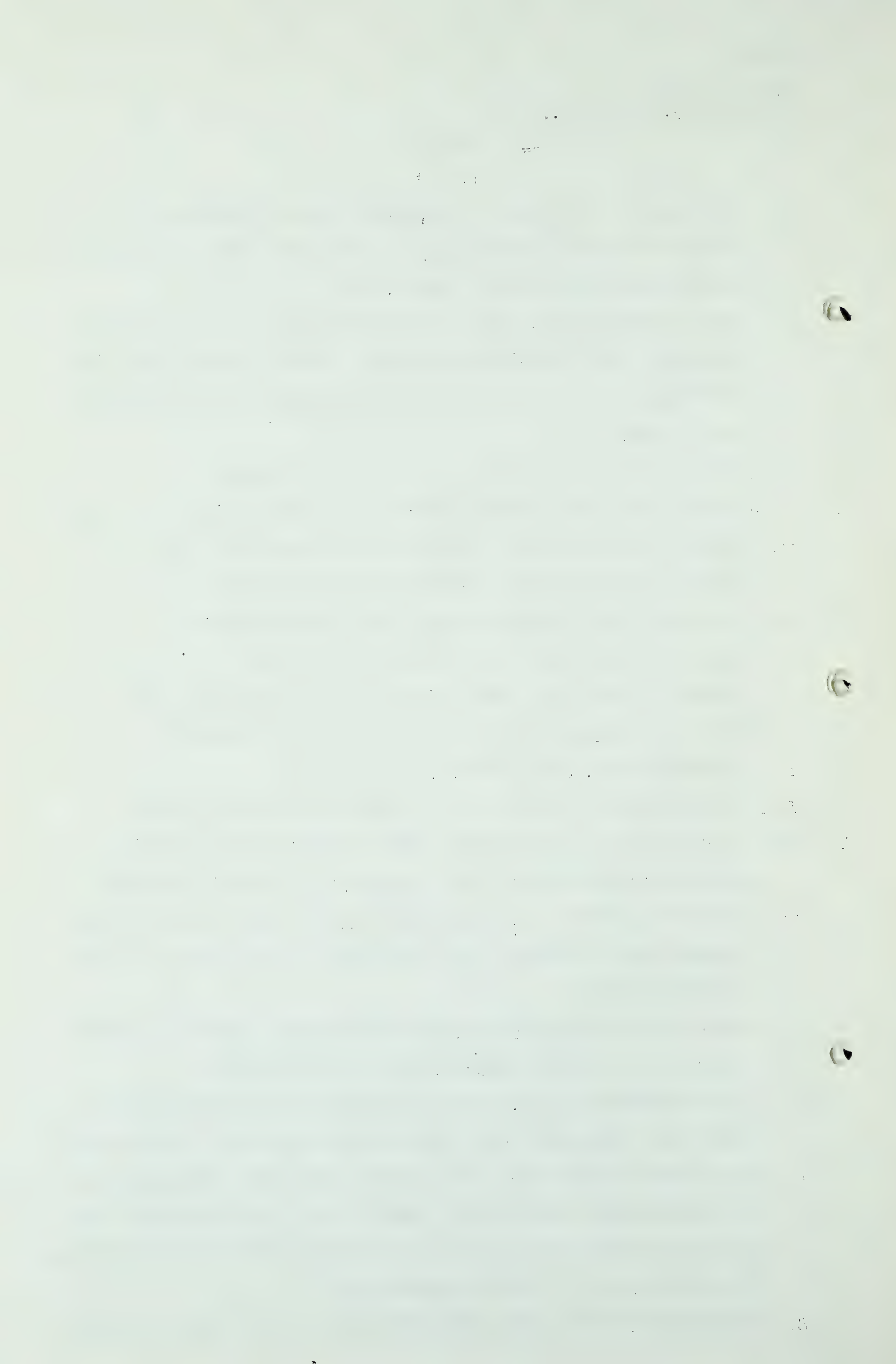
Q I am asking you that, that is a question, would it not?

A I am saying to you that the actual question was, has the gas become sufficiently rich in gasoline, or has the market price of gasoline reached a point where it would be a business proposition to build a plant and take out the gasoline, that is the question.

Q And you are saying that is why the Royalite absorption plant was built and for no other reason, is that right?

A I am not close to Royalite. I do not know what their management built the plant for, other than to say that I never heard of a plant of that kind being built except for the proposition of making money out of that plant, and I do not believe that Royalite would have built the plant except with the expectation of making money, I do not believe it.

Q Supposing Royalite was making money out of the contract with



Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

- 5529 -

the Gas Company, and if in order to provide merchantable gas the gasoline had to be taken out.....

A In that case I would say Royalite would have to take it out.

Q Yes, and might still make money on the over-all picture?

A Why certainly, certainly. You see if the consumer requires approximately 10% more gas because the gasoline has been taken out, if that be true, then not only does the Gas Company sell more gas but Royalite sells more gas, and Royalite or whoever gets this gasoline down there in the field, has a bigger market for gas than he would have if he did not take the gasoline out, so his benefit is measured not merely by how much he gets for the gasoline sold, but how much additional gas does he sell.

Q Well now, Mr. Davis, if you will turn to Page 13 again, of your Report, and you mention a similar situation applies to Royalite, but that there was a complicating factor that there were certain expenditures made for insuring continuity of a supply of gas, and you say:

" Were this evidence to stand alone it might be a little more difficult to deal with than it is when considered alongside the fact'

and there are two things:

'(a) that there was a flare at the Royalite No. 1 plant until 1938, and

(b) that in 1936 the Royalite Company erected its No. 2 absorption plant in Turner Valley, which had no connection whatever with the Canadian Western supply of gas."

Now in any case I take it you will admit, and I am asking you that, first, that there was ^{not} in March 1944 nor is there now any

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Cross-Exam. by Mr. Chambers.

- 5530 -

flare at the No, 2 Royalite absorption plant?

A O.K., that is right.

Q: And there has been no flare at the Royalite No, 1 plant since 1938 other than just incidental?

A I think it is fair to say "incidental" . . I went down there and saw one but I think it was just incidental.

Q And will you agree with this that the Madison gathering system has a capacity approximately double that required for its serving the gasoline plant only?

A Well I do not know why I should admit that when I do not know how much gas they might be wishing to take to the gasoline plant only, if there was no other market.

Q I am saying, going from the same wells, to take the gasoline, if the only operation was to take the wet product out of the gas from those wells?

A You are talking now about the oil wells?

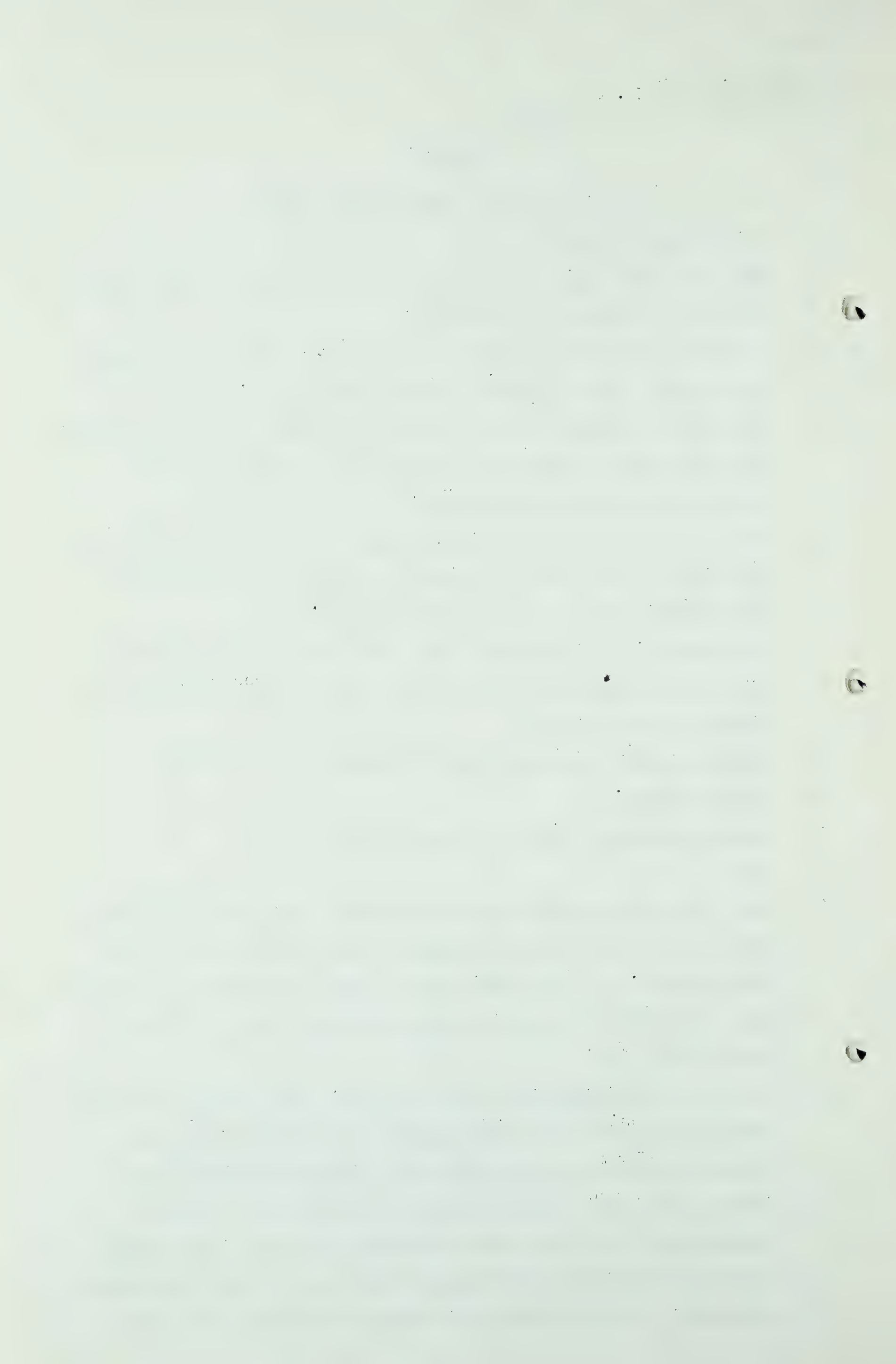
Q All the wells.

A You are talking about all of the wells?

Q Yes?

A Well there was a time when they operated their gasoline plant and took as much gas as the plant would handle and the line would handle, and then conservation came in and they could take only that amount of gas through those lines that the market has a demand for.

Q But what I am suggesting to you is this, that if the gathering system was designed for serving and was serving merely the absorption plant for the purpose of extracting gasoline and nothing more, and not concerned any further with the gas, running on a day to day basis throughout the year, and taking gas from those wells producing as they are, or under the present allowable, let us put that in, that the gathering system's



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Cross-Exam.by Mr. Chambers.

- 5531 -

capacity would only be approximately one-half what the gathering system is today?

A Well have you put a witness on the stand to testify that that is true?

Q No, I am asking you whether you know?

A Well I have not investigated that point and I do not know that that is true. I doubt.....

Q You do not know, is that right?

A I do not know that that is true.

Q Well, as an engineer would you not expect to find a gathering system serving merely the absorption plant substantially less than it would be when it is tied into the service for the market, a dry gas market such as we have here, with a poor load factor?

A No, Mr. Chambers, I do not believe.....

Q All right?

A I do not believe that I would. You built your gasoline plant capable of handling the gas stream peak days, I understand, and the gathering lines the same.

Q Would that not affect.....

A If you had no dry gas market, if there were none?

Q Yes, that is what I am talking about?

A You might find it troublesome to secure a suitable supply of gas for your gasoline plant.

Q Would you agree with this, Mr. Davis, that the present size and capacity of the Madison gathering system has been dictated and followed by the requirements of the Calgary Gas Company's fuel gas market?

A It must have been a factor.

Q And an important factor?

A And an important factor.

Ralph E. Davis,
Cross-Exam. by Mr. Chambers.

- 5532 -

Q And would you not also agree with this, that the size and the capacity of the Royalite absorption plant is also dictated by those same requirements to a considerable extent?

A Well, whether or not Royalite finds it worth while to build the plant they did build for the recovery of gasoline, without regard to any dry gas market for gas, it seems to me that is what the British American did, it seems to me that is what the G.O.P. did and I cannot now go with you and say "While the G.O.P. plant is designed to fit the dry gas market, it was not even built for it".

Q I am not talking about the G.O.P.?

A Well I am asking you to believe me when I tell you that I am not so sure, not at all sure that Royalite would have built a plant any smaller than the one they did build, had there been no dry gas market.

Q Now, Mr. Davis, the Royalite plant would have to be designed in capacity so as to handle the gas on peak load days, would it not?

A The scrubbing plant would have had to be that. The gasoline plant might have been anything.

Q Oh, you do not subscribe to the proposition that the gasoline has to be taken out of this gas before it goes into the market?

A How can I subscribe to that when I know it does not?

MR. BLANCHARD: Mr. Chairman, just while my learned friend is on that, I would like to hear about that, I do not know whether you would or not, but as to whether there is any undertaking between the Gas Company and Royalite that the gas must be stripped of the gasoline content, or whether there is any law, regulation or other requirement that the gasoline should be taken out of it, I would like to know that.

Ralph E. Davis,
Cross-Exam. by Mr. Chambers. - 5533. -

THE CHAIRMAN: Mr. Chambers' question would indicate that he had in mind at some time or another the Gas Company did ask Royalite to strip the gas.

MR. BLANCHARD: Yes, and right there I wonder if my learned friend would be good enough to tell us.

THE CHAIRMAN: But because of the question which followed I think it is important that we should have concrete evidence as to whether or not the Gas Company did ask Royalite to do this.

MR. CHAMBERS: I will deal with that.

THE CHAIRMAN: There is only one regulation in the Province that I know of, and that applies only in an unorganized territory and the regulation is that the gas shall not be sold for domestic consumption if it has a gasoline or sulphur content that is dangerous to life and property. Now that leaves the quantity wide open, and as I say there is only one regulation in the Province that I know of and it does not apply to the City of Calgary.

MR. CHAMBERS: Now with deference, Sir, this witness has had a large amount of experience in this very sort of thing, and as I understand, his opinion is that Turner Valley gas from the separator, at the wellhead, can be gathered and put through the scrubber and can be safely marketed to the consumers in Calgary, is that right?

THE CHAIRMAN: That is true, Mr. Chambers, but the point which Mr. Blanchard makes and which ^{is} in my mind too, you started this line of questioning by asking him if he knew.

MR. BLANCHARD: Yes.

THE CHAIRMAN: That at one time the Gas Company became concerned about the gasoline content and you left the impression, I do not suggest wrongfully, that the absorption

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Cross-Exam. by Mr. Chambers.

- 5534 -

plant was built primarily because of some request made by the Gas Company. Now if that is so there should be evidence on that.

MR. CHAMBERS: Of course, I do submit that I am not, - I cannot be expected to put the evidence in during my cross-examination or in the middle of my cross-examination of this witness.

THE CHAIRMAN: Oh no.

MR. BLANCHARD: But I did not want to forget about it, let us put it that way, and I wondered whether my learned friend would clarify it either now or later.

MR. CHAMBERS: I can deal with that later but I want the benefit of this man's experience and opinion now.

WITNESS: Well, it might be still better, - I have burned casinghead gas in my own house without taking any gasoline content out.

Q MR. CHAMBERS: I am really concerned with Turner Valley gas?

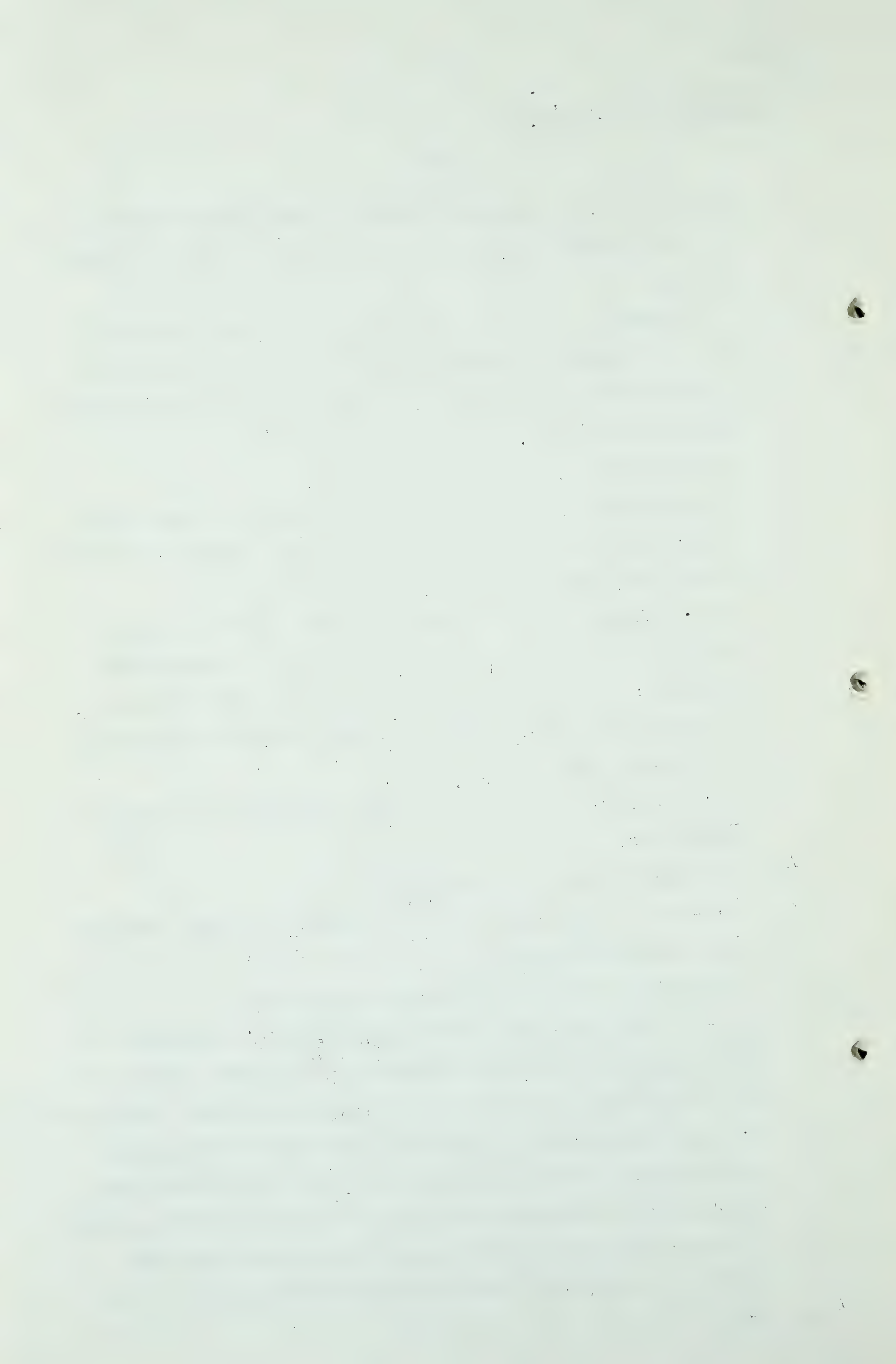
A You asked me about my experience.

Q No, I said in the light of your experience and your knowledge about Turner Valley gas?

A I am giving you a little bit of my experience.

Q But I say in the light of your experience as an engineer in gas matters and with your knowledge of the Turner Valley gas as a consultant engaged by the Gas Company, and as I understand it, your opinion is, and you would be prepared so to advise your clients, the Gas Company, that this Turner Valley gas that has not come through the separator, can be passed, merely gathered and merely passed through the scrubber, and then would be fit and safe for the Calgary market, is that right?

A Yes.



Ralph E. Davis.
Cross-Exam. by Mr. McDonald.

- 5535 -

MR. CHAMBERS: Thank you.

THE CHAIRMAN: Mr. McDonald, I think you should take the witness next; the well head price is your great concern, and Mr. McDonald, I suggest that Mr. Fenerty surrender his place to you and that you conduct your cross-examination from this end of the table, and that he let you cross-examine from there.

MR. McDONALD: It will be all right just here, Mr. Chairman.

.....

CROSS-EXAMINATION BY MR. McDONALD.

Q Mr. Davis, can you tell me of any oil field in which crude oil is produced in which the production is prohibited because the gas lifts the oil and is flared, in your experience?

A No sir.

Q I suggest to you that the only place in which the production of gas is prohibited is in a case of a gas field as such, and you are going to regulate it?

A You asked me if I know of any place where the production of oil is prohibited.

Q Yes?

A Now I know of many fields and places where the production of oil is regulated and curtailed.

Q And restricted?

A And restricted on account of the gasoline but not prohibited.

Q And that is the situation in the Turner Valley crude oil area.

A Yes.

Q Under the Brown Plan?

A That is right.

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M-3-1 - 12.05 P. M.

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

- 5536 -

Q Now if there was a gas field which had no connection with production in oil, where the gas is produced for its own sake, there may be instances where regulations have gone to the extent of prohibiting production of that gas ?

A You mean of wasting the gas ?

Q I mean and flaring it ?

A Oh absolutely yes, California, Texas and other places.

Q So that as I read your statement, this question of conservation of gas has gone to the extent of restricting oil production so as to conserve gas but has never gone to the extent of prohibiting production ?

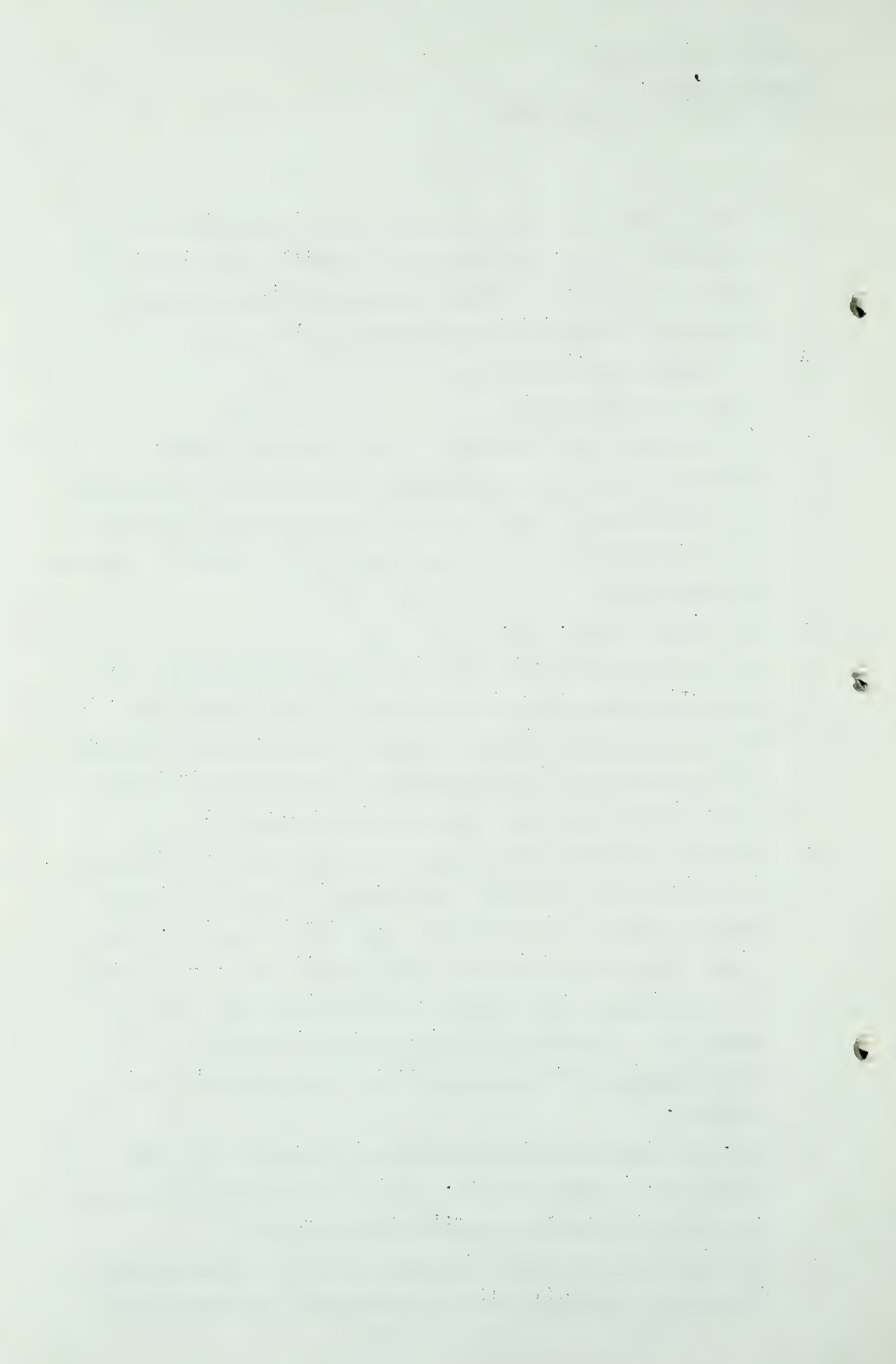
A That is my answer, yes.

Q And I suggest to you that the ideal type of control of oil production where there is gas being used for lifting power is to create some relationship between the amount of gas produced and the amount of oil produced that will be economic in gas and still give a reasonable amount of oil production ?

A In other words you are saying it is desirable to say complete the well that it will have a low gas-oil ratio and that of course is the way the wells are completed if possible. Sometimes a well brought in has a high gas-oil ratio, the operator may endeavour to case off the upper portion of the sand and thus gain a lower gas-oil ratio, so that it is always considered desirable to operate with the lowest gas-oil ratio possible.

Q Yes. Now the scheme that we follow in Turner Valley, the Brown plan, is such a scheme. It is based on the oil and gas content of the reservoir pertinent to each well ?

A Well in each well in Turner Valley the well is completed and it may have a gas-oil ratio of substantial difference than



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the average well, at its date of completion. That is the gas-oil ratio as you know varies very materially, and I am only able to say that in the conservation brought about by the Brown plan, less oil is permitted to be produced from oil having an exceptionally high gas-oil ratio. In other words, the total liquid or gas filling a certain number of cubic feet in a reservoir is permitted as its allowable and if half of that happens to be gas then the oil that can be produced is the other half.

Q Would you say that the Brown plan as operated in the crude oil area in Turner Valley is a reasonable scheme of conservation ?

A I looked at it very much last spring and prior thereto and saw the results. I thought it brought about a substantial conservation and further I thought I saw evidence that the ultimate oil production would be greater.

Q Now would you advocate that during the summer months the gas produced from those crude wells, I mean the oil production, should be decreased to the point where no surplus gas would be produced ?

A I doubt that I would advocate that.

Q I mean there has to be reason in all things ?

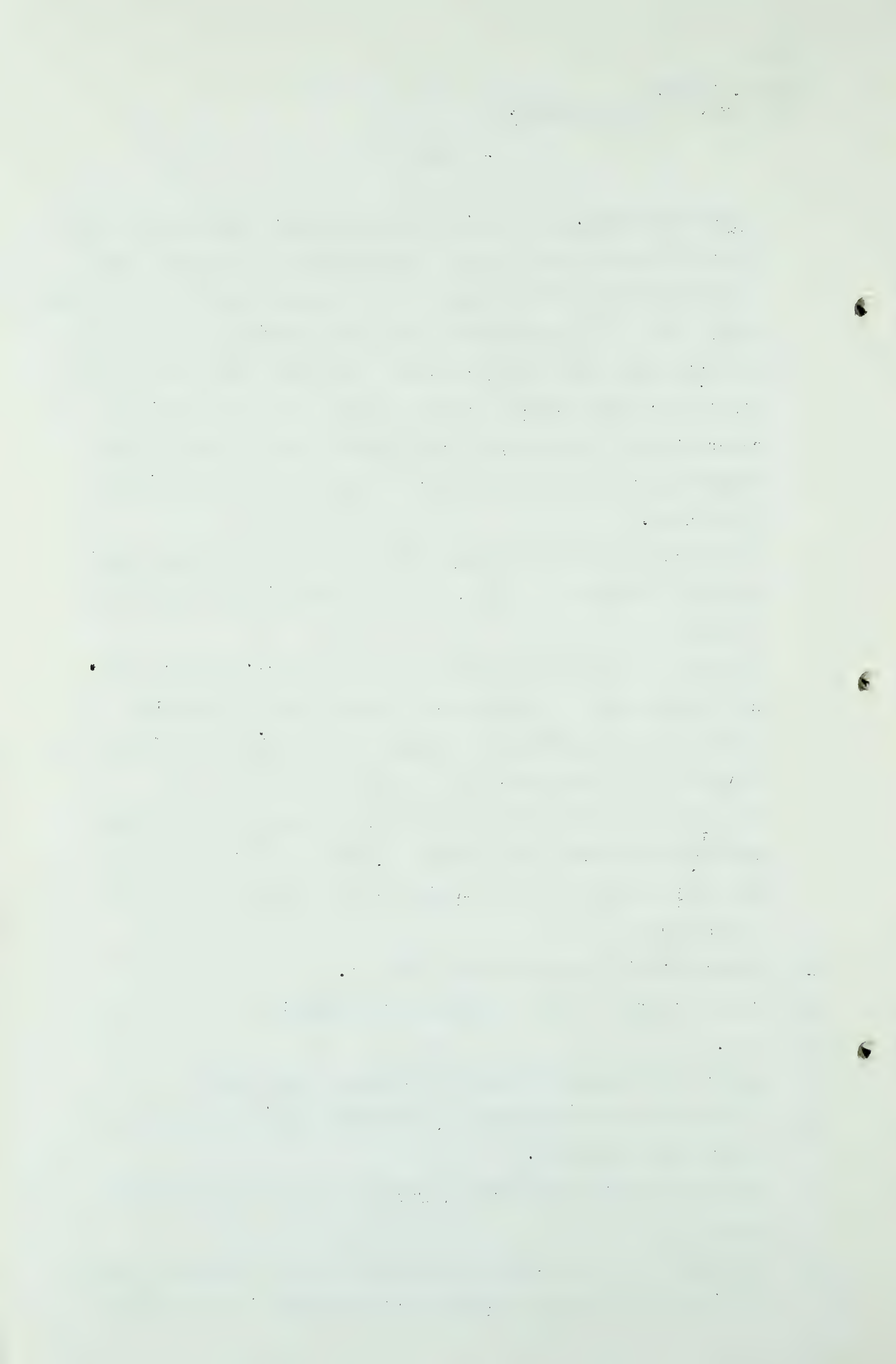
A Yes.

Q And the oil producer has to be treated reasonably ?

A I would not advocate that, not without a lot of study beyond what I have given it.

Q And prime facie you would say possibly it would be unreasonable ?

A It seems to me the thing has operated pretty well and I would not want to change it without a lot of study. You do bring



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out a point that if the production were to be limited in any period of the year, the summer would be the better period from a standpoint of conservation.

Q Now in the statement you have filed, Mr. Davis, you referred to the different methods of conservation and I take it you were referring to restricted production of gas in the crude oil areas so as to prevent flaring as much as possible and in addition you were referring to storage or repressuring of gas, putting gas back into the ground. That was really the two methods ?

A That is right. If you cannot find a market for the gas you either put it back in the reservoir or you curtail your production.

Q Now from an oil producers standpoint, that is the crude oil well owner, the only reason that he would desire to repressure his gas once it has lifted his oil is because it will be re-introducing it into the structure and either maintain the pressure or it will be recycled to his well again and pick up more oil. Is that not a fair assumption ?

A It is a fair statement, although I may say it is an exceptional case, where the last of your reasons would apply.

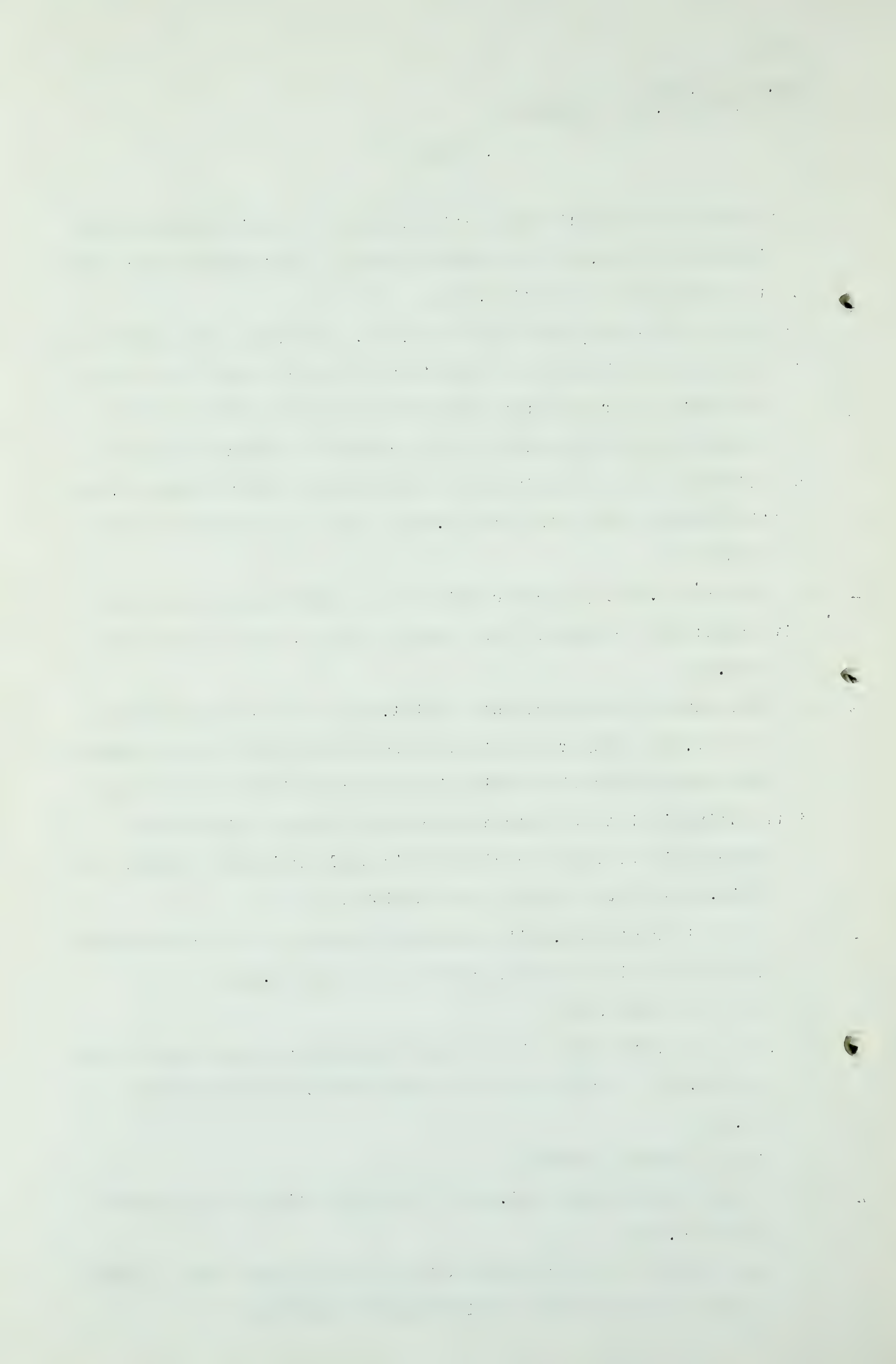
Q That is recycling ?

A Yes. In order that gas will move through and come out of the well again. We do have those operations in some marginal fields.

Q But it is very unusual ?

A It is comparatively unusual. In quite a practice in western Pennsylvania.

Q And you have regard to the type of sand and the type of formation in which the oil production is encountered ?



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A That is right.

Q And we have not that type of formation in Turner Valley ?

A I would say we would not consider trying to do that in Turner Valley.

Q So that so far as the oil producer is concerned he would only go to the expense of repressuring if he thought he would maintain his pressure in the field and eventually would recover more oil ?

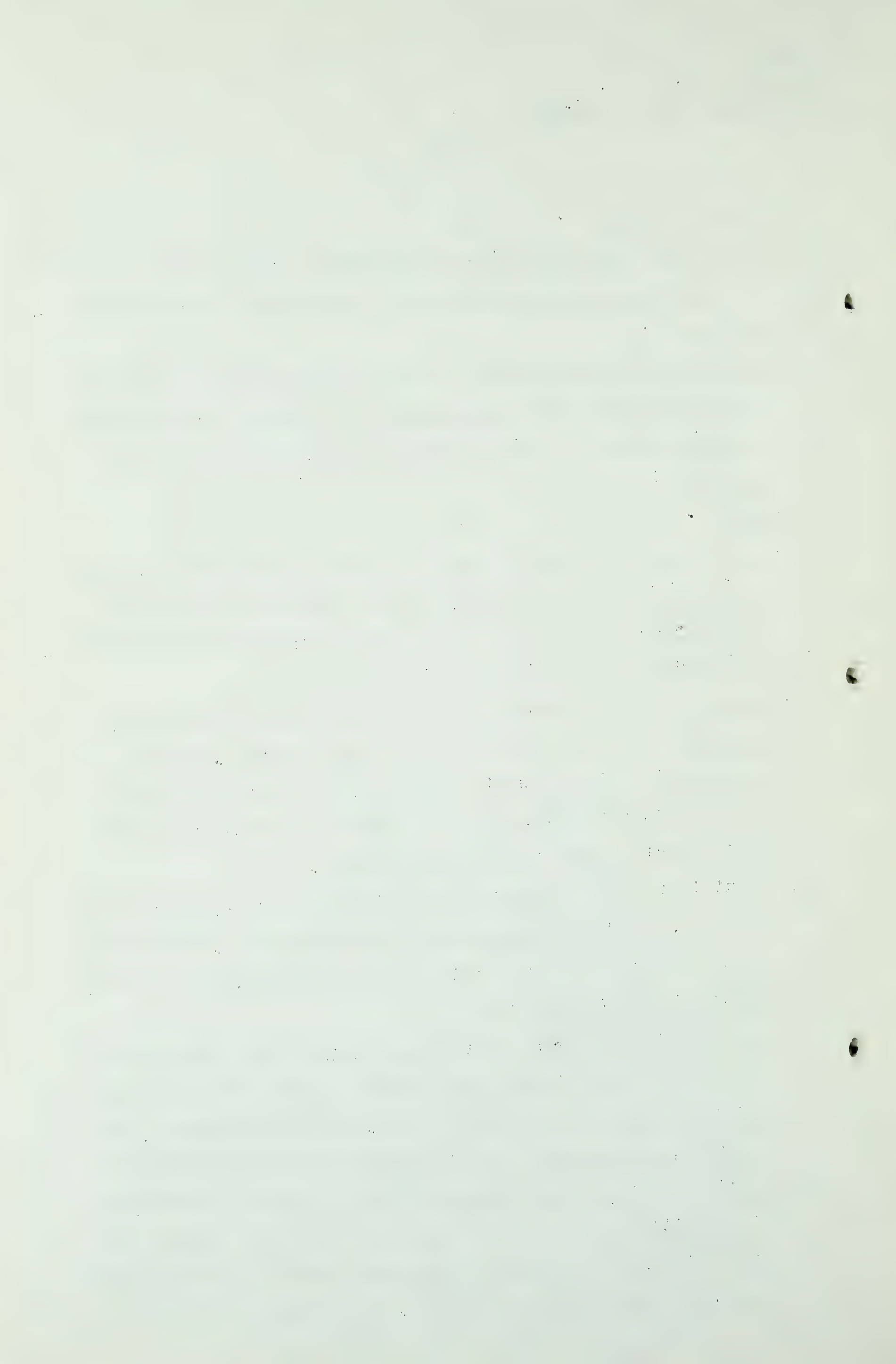
A Yes.

Q Now I suggest to you that outside of the fifty storage fields in which you have mentioned a little while ago that the only repressuring done in any field is for the purpose of maintaining pressure for oil production ?

A That is the only purpose that the oil well operator has, except that being aware of pending regulations. Pending regulation in Texas is a powerful regulation and steps are being taken to return gas to certain oil reservoirs to avoid an expected order to reduce production.

Q But in the field in which there is already in operation shall we say, a fully reasonable type of conservation, there is no danger of that pressure being brought to bear, where conservation is in effect ?

A We have in Texas conservation of gas in the oil fields which I have said here is comparable in its result with the result of the Brown plan in Turner Valley, broadly comparable. For example, in Texas if a man is producing oil with a gas-oil ratio of not over two thousand cubic feet to the barrel, he is permitted then to have a full well allowable allotted to that field, so the field is given ten thousand barrels daily and there are five hundred wells. That would be twenty



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barrels per well, would it not. Some fellow has a well, maybe high on the structure, but in any case with a high gas-oil ratio, greatly exceeding or even modestly exceeding two thousand cubic feet to the barrel. His production is by order of the State Railroad Commission reduced. It is quite similar to this Brown plan. Maybe not as scientific as the Brown plan in its detail, but equally effective.

Q Now that producer with the high gas-oil ratio could produce his well to the full capacity of his allowable provided he repressures his surplus gas, is that permissible?

A Yes, indeed, or even if he found any market for that gas. Carbon black market would be permitted.

Q Well there is no regulation I suggest to you, Mr. Davis, that you know of in Turner Valley which is similar to that. Any operator in Turner Valley is permitted to produce to his allowable at any time?

A In Turner Valley he is permitted to take a certain number of cubic feet per day.

Q Regardless of what he does with that?

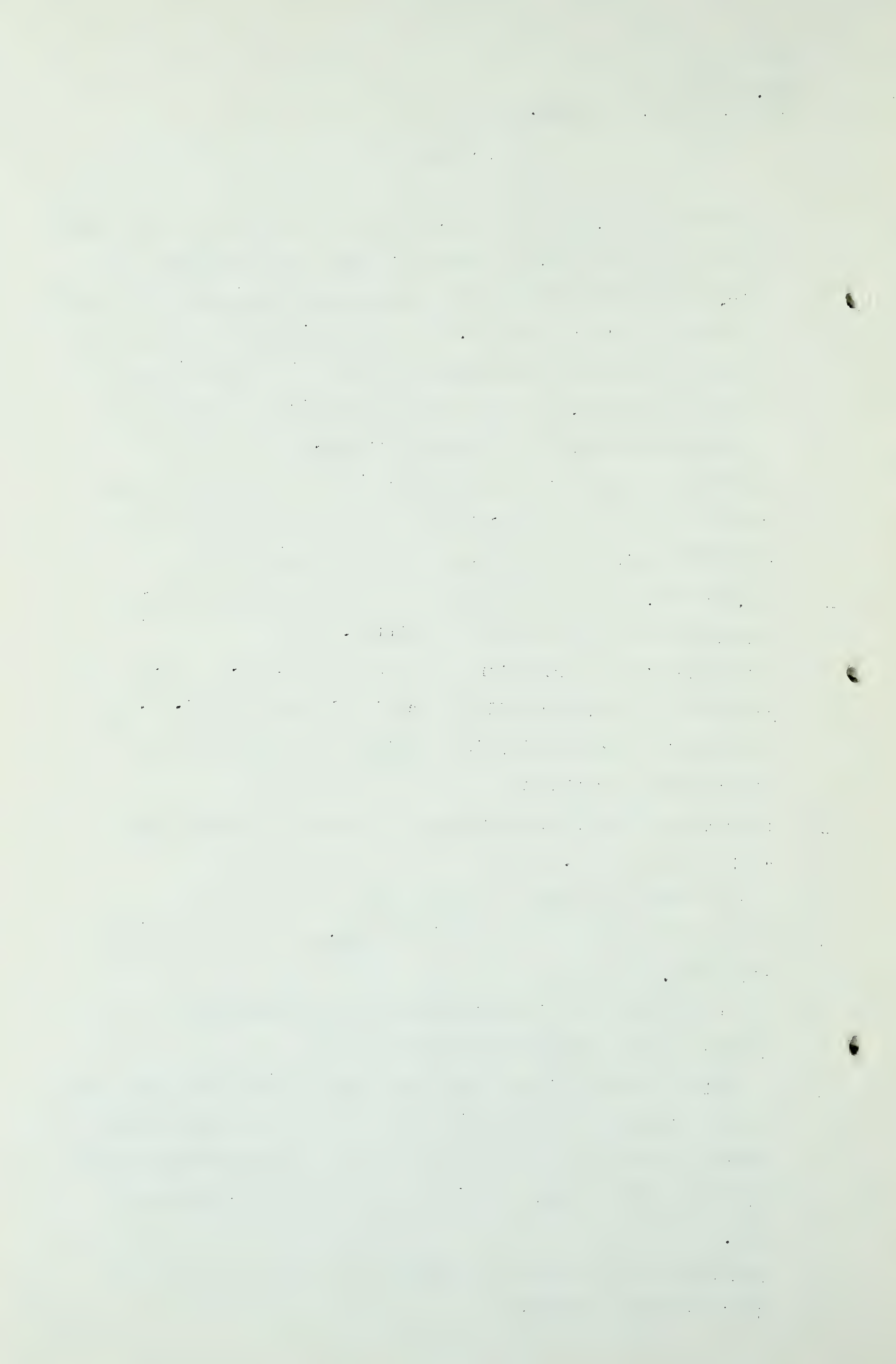
A Regardless of what he does with the gas, does not alter that allowable.

Q So that particular illustration does not actually apply to Turner Valley at the present time?

A Well of course this is true that this man in Texas who might have a high gas-oil ratio will if the field allowable were fifty barrels per well per day when he produces fifty barrels of oil he is through, even if he has produced a minimum of gas.

Q And that would be exactly similar to the Brown plan?

A It is closely similar.



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Q Now I suggest to you that the only repressuring scheme or the repressuring scheme that you refer to in your statement in which the crude oil well operator bears the cost of repressuring are those schemes in which the crude oil operator receives a tangible benefit in the maintenance of pressure in the field from which he is producing his oil ?

A In Texas. We are talking now about Texas.

Q Well you referred to these parts of Louisiana and Texas ?

A Yes.

THE CHAIRMAN: Is that not what would happen in Turner Valley. If I remember correctly the pressure in the gas cap is greater than in the oil dome. No, it is the other way around and by repressuring in the gas cap you are tending to reach equilibrium of pressure between the two. That is my recollection. It is a long time since I heard the evidence.

MR. FENERTY: If it will help my friend and not limit his cross-examination I may say I have the complete statute here of Texas and he might like to know what it says before he goes down some side alley.

MR. McDONALD: No, I am not interested in Texas. I am interested in Turner Valley.

Q Just on that point, Mr. Davis, will you tell me what benefit does the crude oil producer receive in Turner Valley from the pressure now. Now you have been examined on that at least three or four times.

A What benefit would he or does he ?

Q Or does he receive ?

A I do not think the benefit is measurable.

Q That is the point. That is your evidence on other occasions on which you have been questioned ?

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A Did I say that before ?

Q Yes.

A Well I have got a good memory maybe.

Q Well I put it to you that no man is going to spend money, a good many thousands of dollars to repressure something which he does not know if it will ever benefit him. In other words he must have a measure.

A That is his reason. He is not going to do it in Turner Valley for the benefits that will accrue. He may do it in Turner Valley if that is the only way he can produce his oil.

Q Yes, there must be something just besides the proceeds from the sale of oil ?

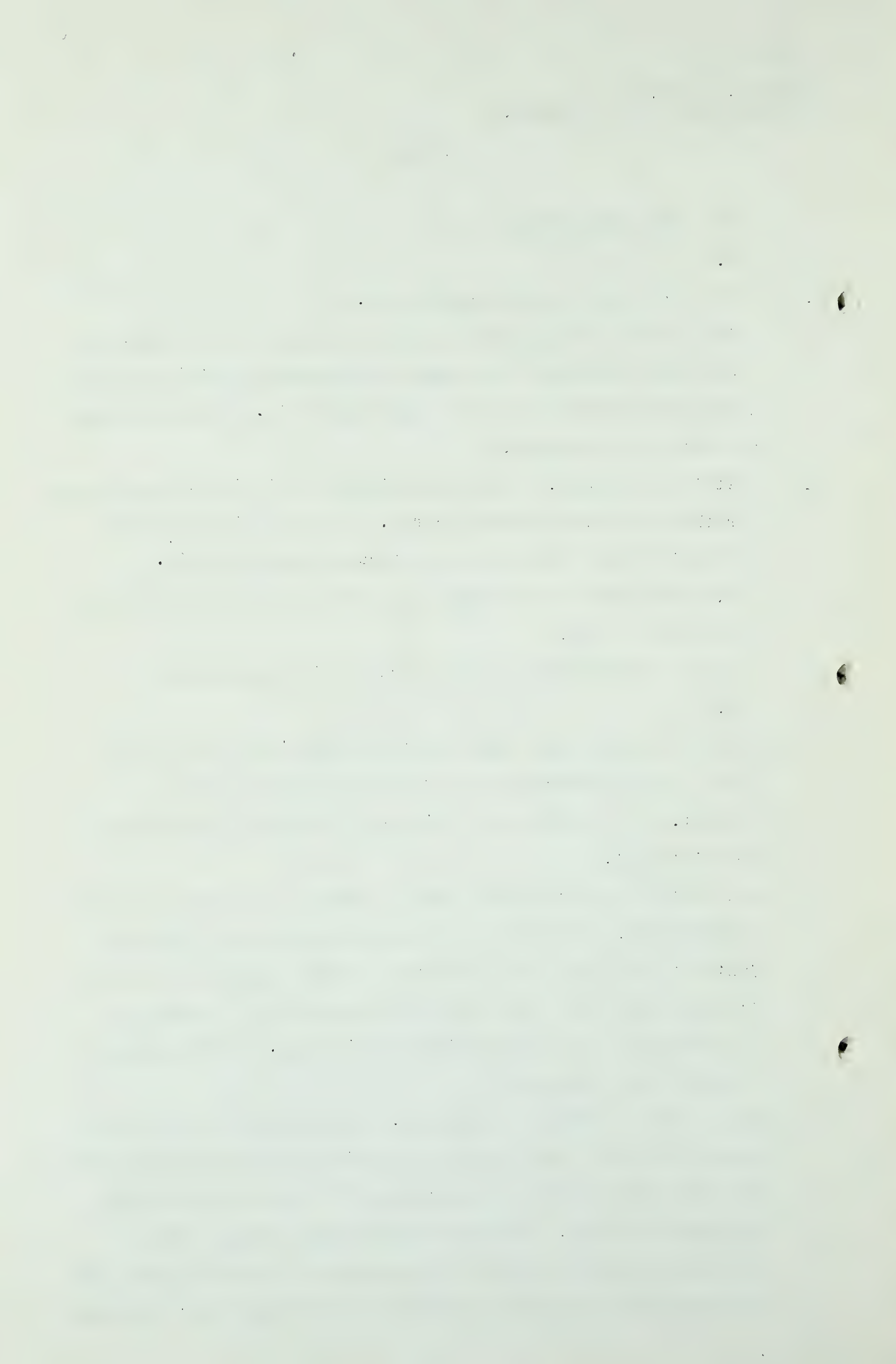
A You are talking now of the effect on oil production ?

Q Yes.

A If you take this gas which might be going into the air and pump it into the ground and eventually sell it there is a benefit. If he sells at a price to recoup the investment and some interest.

Q And that brings us to the second reason or the second type of repressuring, and that is the question of storage where you just put the gas in the container for the purpose of storing it for future use and I put it to you that is a second or different type of repressuring that is done, not the method we have been discussing ?

A We do not call that repressuring. Repressuring is where the gas is put back into the same formation that produces the oil and maintains or tends to maintain the pressure in that oil producing horizon. That is repressuring, putting back pressure, back where there was pressure. Now gas storage is another matter and has an entirely different purpose. Although



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of course gas put into the oil reservoir for repressuring is also being stored so you have the benefit of the gas reserve there that would otherwise have gone. Now in the case of a Gas Company not interested in oil production, just interested in the gas business where they have developed the storage reservoirs by taking some old depleted field, or some depleted field and arrange to use it for input in the summer and output in the winter. That is gas storage, not repressuring.

Q Now I suggest to you in Turner Valley the gas has been stored in the Royalite gas cap, is being put in not for a term of six months, that is from year to year, but for a longer term and that is the only difference between the storage in Turner Valley and the storage to which you have referred, the length of time that the gas is in the horizon ?

A That is a great difference.

Q That is a great difference ?

A That is.

Q But on the general principle the storage of gas in Turner Valley, I mean the placing of gas back in the formation in Turner Valley is a storage proposition ?

A It is a storage proposition, a long term storage proposition.

Q And that is where we differ in a large measure from these fifty other storage cases which you mentioned to us this morning ?

A That is true.

Q Now in those fifty cases, the cost is carried by the Gas Company which is serving consumers, as a consumer charge ?

A That is right.

Q Now then the only thing we have between that type of thing in the United States and what we have in Turner Valley is the

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introduction of a new factor of say ten, or fifteen year term of storage ?

A Well I would still point out to you that in the case, let us say of the Peoples Natural Gas Company in Pennsylvania when gas is put into one of their storage fields I as a consumer on their system have no doubt that that gas is going to be delivered next winter to me and my partner consumers, and the difference in Turner Valley is that you are putting the gas into that reservoir and we do not know who is going to get it. At least I have not any notion as to who will get the gas in the fifteenth year. The very fact of conservation, conservation in itself is apt to attract industry, gas burning industry, and I do not know that the Board would be inclined to deny industry entrance into the Province if it were a type of industry that might be profitable to a lot of people. Build up a little community.

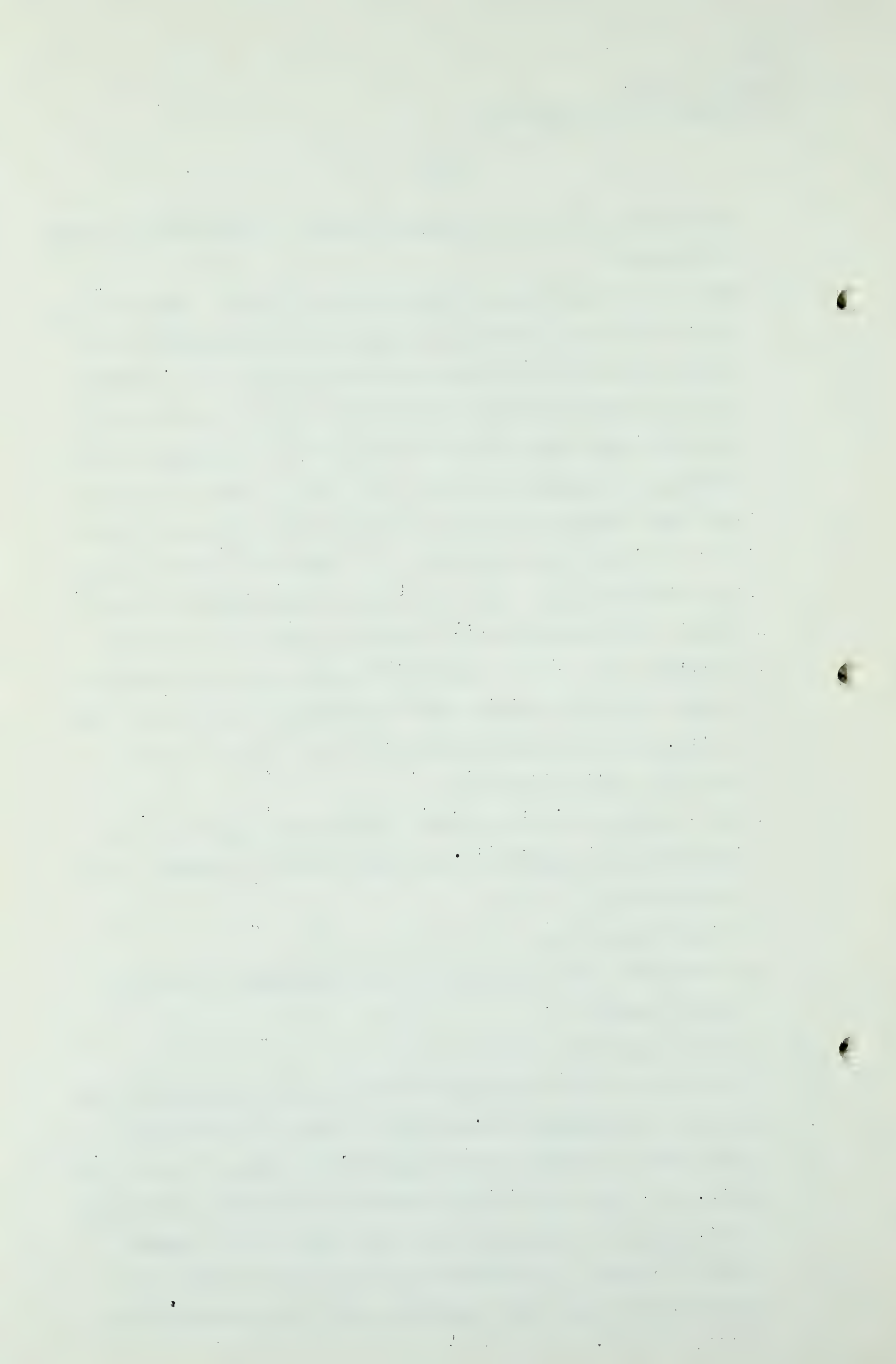
Q Well I suggest to you that the problem you raise there is something that possibly can be worked out by contract or by legislation ?

A I think it could be.

Q On terms that would take care of the consumer interest all the way through ?

A I would think it could be.

Q Now dealing with your criticism of Mr. Zinder's evidence Mr. Davis. Mr. Chambers examined you in regard to the first point, the question of coal, competitive fuels. I won't deal with that. In regard to the second point that you mentioned, endeavouring to value the gas at the well head by public utility prices. I suggest to you that when a utility is created and comes under regulation for the first time you



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have to take the situation just as you find it, and in fact the actual cost, the actual money invested should be the basis of any calculation that is made. Would you agree with that ?

A May I ask you if it would be a parallel to say when the Federal Power Commission was created in the States and given authority to regulate the natural gas industry, that it should have taken let us say the Hope Natural Gas as it found it, with its past investment or would you say that the Federal Power Commission should still have looked into the matter of whether or not amortization had been taken in a proper amount.

Q Oh I think dealing specifically with the Hope Natural Gas Company and the Federal Power Commission, what it did do was to take original cost, examine the depreciation, decide that it was reasonable or otherwise ?

A And disregarding testimony regarding cost to reproduce.

Q That is true ?

A You think that would be O. K. ?

Q No I am suggesting to you that in this particular criticism which you have would that be a fair approach to it ?

A Where, on the inception of this Act for the Board to take the property as is. That is your question ?

Q Yes, these wells.

A I think that the Board would give consideration to the usefulness of the property to the service that it is in, whether or not the size of the line is suited to the gas stream that will come through it or was it built in a previous year when more gas was available to it. I think the Board would fail in its duty if it blindly said, they still have got a million dollars invested and I guess that is all right. I think they should look to the suitability of the equipment for the service that it is going to render and be guided largely thereby.

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Q You agree with Mr. Zinder, however, that the utility method of determining the value of gas produced in Turner Valley is not applicable?

A I agree with him that that is an impractical scheme to try and value gas on the utility approach. I do not know that Mr. Zinder I think he made calculations on that and said he did not recommend it.

Q That is true?

A I did not make any calculations on it. I just do not recommend it anyway.

Q I suggest to you, then, that you have to go somewhere else to get a measure of value, a yardstick?

A If there be any place to go you have to go some place else. If that does not afford it.

Q THE CHAIRMAN: And if you want to approach it from some scientific principle?

MR. McDONALD: Yes.

Q Have you any suggestions as to where there is a yardstick or a scientific principle?

A I think I have indicated that I know of no scientific approach, if I may call it that. I guess I called it pencilled figures didn't I. I know of no way of arriving at a value by calculation. That is what you mean by scientific approach.

Q Yes?

A It seems to me the factors are too indeterminate to put mathematical values on them, each factor alone. It is as easy to judge the answer placed upon all of the facts and knowledge that you can gain of the problem as it is to try to put a separate value on every factor and then multiply

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and divide.

Q You do get to this point, and that is that the producer can only expect to get what his gas can be sold for in the consuming market, less the cost of getting it there?

A That is about all he is going to get. He is not going to get any more than it will sell for, less the cost of getting it there.

Q In the consuming market?

A Yes. That is about all there is to that. You cannot get any more than that because there will not be anybody pay more than that.

Q In order to find out what the products can be sold for, you have to look at the market which the transporter is delivering his gas to?

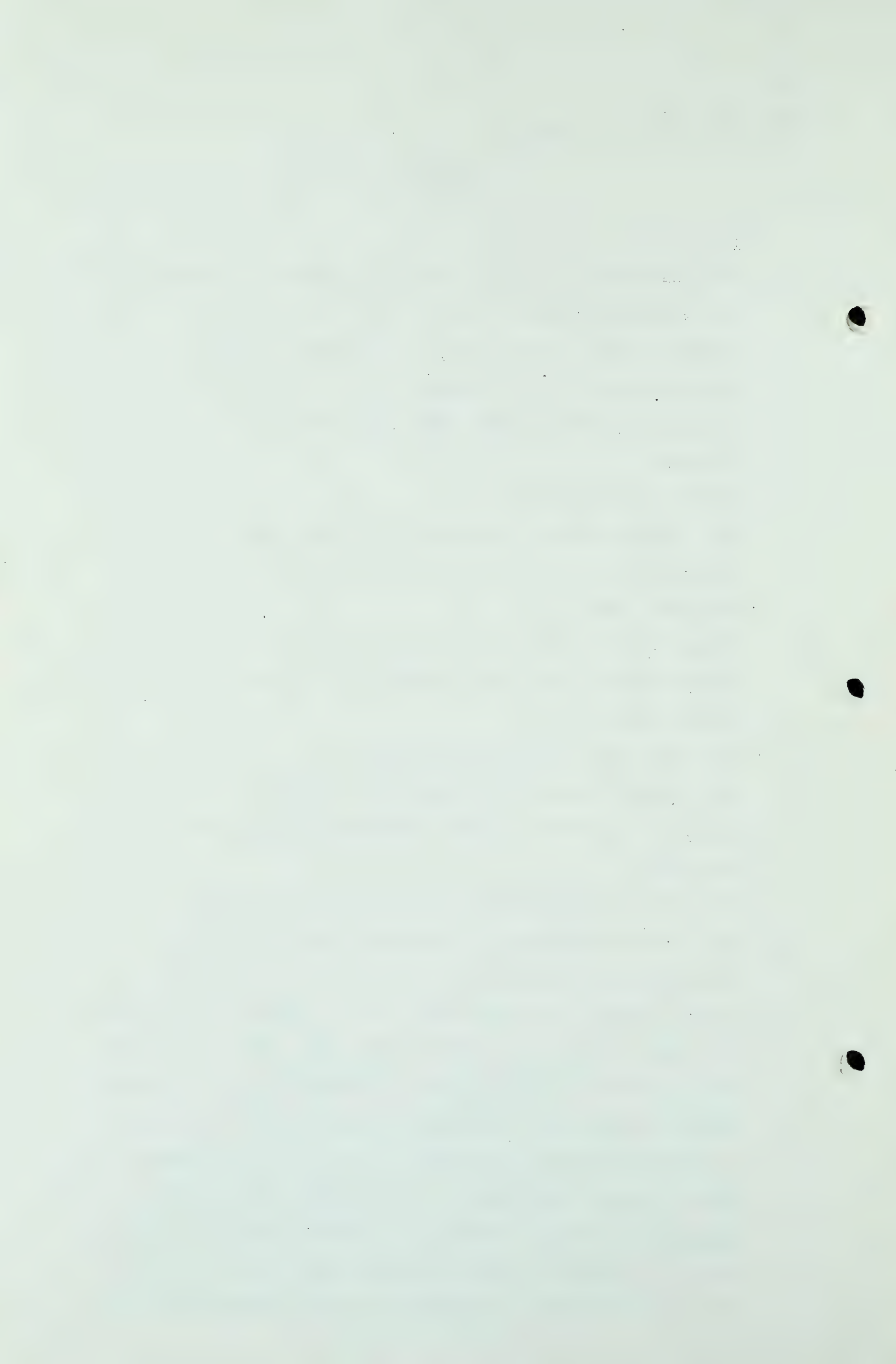
A That is a practical way to look at it.

Q And then the question of competition with other fuels or the value of service to the ultimate consumer comes into question?

A Even such an intangible thing as psychology comes into mind.

Q Yes, we have had some of that too. Now then, Mr. Davis, throughout your statement you refer to waste in years gone by and you seem to imply that has some bearing on determining the value of gas, the price for the gas. Now are we not dealing with a situation which is created by this Act and should we not look to the future rather than to the past?

A I just suggested a moment ago to you that psychology is a matter of some importance. If the Board could find a thoroughly reliable scientific solution that would fix the value of this gas, scientific and unassailable, I think they would not find the problem so difficult for them in



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the future. But they will find if their solution at best is an approximation based upon judgment, based upon all the facts they have, it is a determination that cannot be proven by scientific approach and then if the Board says "this gas at the well head is worth 5¢," and the people in Calgary say "What, 5¢? Why those people used to throw 500 million feet a day out into the air out there." What would that be, \$25,000.00 a day. They do not believe it is worth 5¢. That is the judgment of the man on the street and he has got something on his side.

Q I am suggesting to you that this Board may be tempted to take that into consideration and maybe somebody who did not give much thought to it might take it into consideration but surely it is the price of the future that you are fixing and that price is based substantially on the facts now, that are now in existence and you should not go behind that. What I have in mind is this, Mr. Davis, by adopting that theory, that consideration, do we not open up the matter that you and I were discussing the last time I was cross-examining you, the history of Turner Valley and all that transpired from the day that gas was discovered there up to the passage of this Act? You mentioned a minute or two ago that all that happened from 1926 on, or 1925 on to date is relevant?

A Yes I think so.

Q I am going to suggest to you that in 1932 there was a Hearing before the Legislative Assembly in this Province in which the whole gas matter was canvassed. Were you present at that hearing?

A No. A Hearing?

Q Have you any recollection of advising the late Mr. Yorath

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in regard to the presentation he made at that Hearing?

A I am sorry, I do not remember. Do you have the record relating to it?

Q Yes, I have some record. I think there is extant a verbatim record of everything that was said at that Hearing?

A I would like to know what I said.

THE CHAIRMAN: What was that, Mr. McDonald? A meeting of the Agricultural Committee?

MR. McDONALD: A meeting of the Agricultural Committee on March 18th 1932.

Q All I have before me, Mr. Davis, is the Calgary Herald edition of Friday, March 18th 1932 and the headline is "Yorath opposes gas export." Yorath.

A He opposes who?

Q The export of gas?

A Oh.

Q Now I am suggesting to you that following your evidence as already given and I think as referred to in this statement you had at some time advised Mr. Yorath there was not sufficient reserve in Turner Valley to allow the export of gas from Turner Valley, in 1932.

THE CHAIRMAN: That is a long time ago. Why don't you give it to Mr. Davis and let him look at it and let him read it and then he can tell you whether he advised Mr. Yorath or whether he did not.

A I do not recall anything about it. Because Mr. Chambers yesterday asked me how much gas I thought there was in Turner Valley back about 1930. I looked into the record of the 1931 Hearing and at that time stated that two years

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prior to the date of the Hearing, which was in May 1931, I had estimated the gas reserves of Turner Valley at not less than 500 billion. That means in 1929. Now at that time, 1929, according to the testimony in the 1931 case about 100 million cubic feet of gas was being produced in the Turner Valley, including gas that went to the market. By 1930 the daily production was about 300 million feet and in 1931, the date of the Hearing, it was about 500 million cubic feet. I would have said back in that time given 500 billion cubic feet and no waste you have got gas, to go where? Not Chicago, not 250 million feet a day with a 26 inch line, but gas enough to go if you want it to Regina or Moose Jaw or maybe Saskatoon. In other words, the longer your line the more gas you have to carry through it and for a longer period of years in order to get your investment back.

Q Yes?

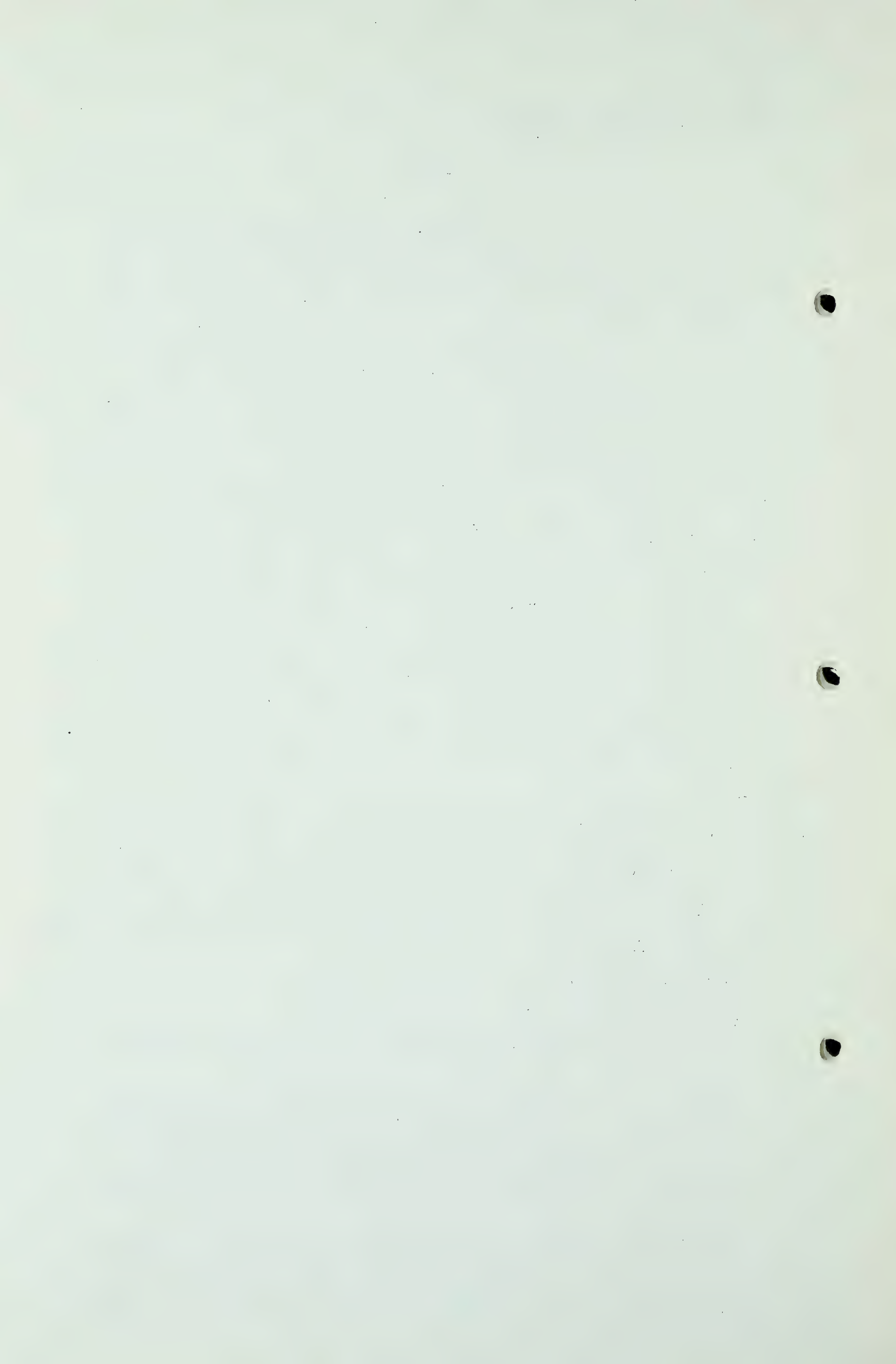
A We can go 500 miles. In my judgment at that time, if we had had conservation back in 1931, at the time of the Hearing, people were talking of conservation and it was expected then that the Assembly would pass a law limiting production to 40% of the overflow.

Q And that transpired?

A In any case, 40% became 400 million cubic feet, you know, pretty soon.

Q Have you any knowledge of this, following that Hearing the Government of the Province determined on the policy in regard to the export of gas. Have you any knowledge of that?

A I believe - just what my knowledge is I have the general impression that to export gas from Alberta you would



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have to secure legislative approval. I believe you have to do that.

Q Do you know if any applications were made?

A I do not know of any.

Q Do you know of any applications to export gas from Alberta in quantity that have been granted?

A Not in quantity. A little gas was taken from Alberta down across the Montana line for a number of years but it was not in any great quantity. I do not know of any grant having been made that would permit a sizeable amount of gas to be taken for a long period of years. I do not know of any. I do not know of anybody ever getting far enough in the plan to export gas to reach the point of making application. Of course there may be somebody has done it.

Q Can you tell me this, Mr. Davis, if you can recollect it, of the 500 million feet a day that was being produced in say 1931 do you know the percentage that was controlled by the Royalite Company?

A I do not know but I presume it was a substantial portion.

Q But there still remained outside the control of the Royalite Company a substantial block of production?

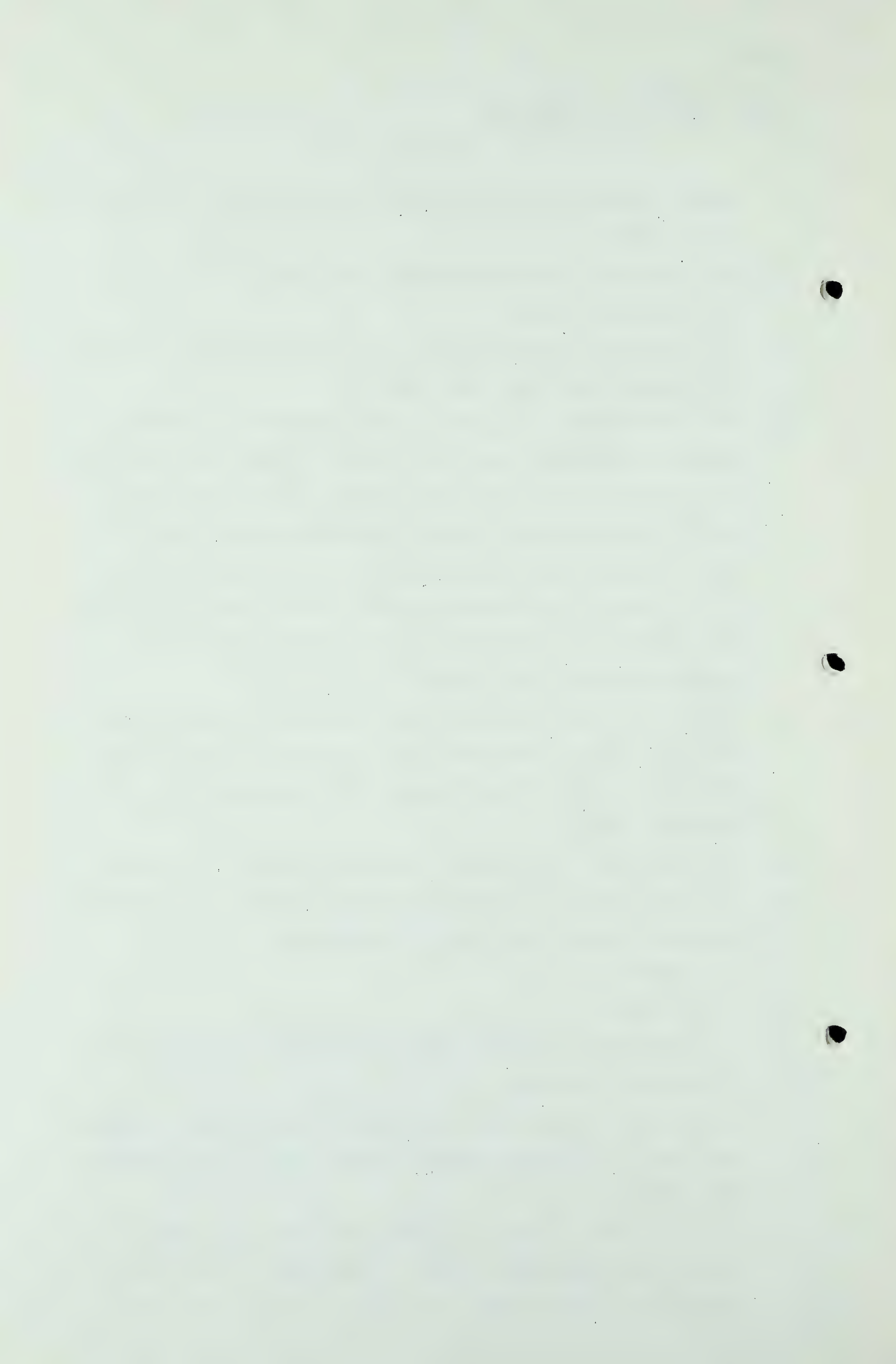
A In addition?

Q In addition?

A In addition to Royalite, there was substantial production from other operators.

Q Do you know of any steps taken by the Gas Company to bring that gas that was not covered by the Royalite contract into the market?

A I do not know of any. I do not believe the Gas Company could have taken such a step. In the year in which they made that contract there is no gas available from other



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producers. There is no certainty that there will be any other producers and under the circumstances it was, as I see it, a natural development for the Gas Company to contract with the Royalite on the theory that they would be the only source of gas. They were at the moment the only source in sight.

Q Yes?

A And when the time comes that Royalite has plenty of gas for rendering the service the Gas Company cannot complain on that score, and it is rendering a service. I do not believe the Gas Company could go to others and try to break the Royalite contract.

Q I am not suggesting that they could do it legally?

A I would not have advised them to do it anyway.

Q What did they do as a matter of policy to maintain the reserve?

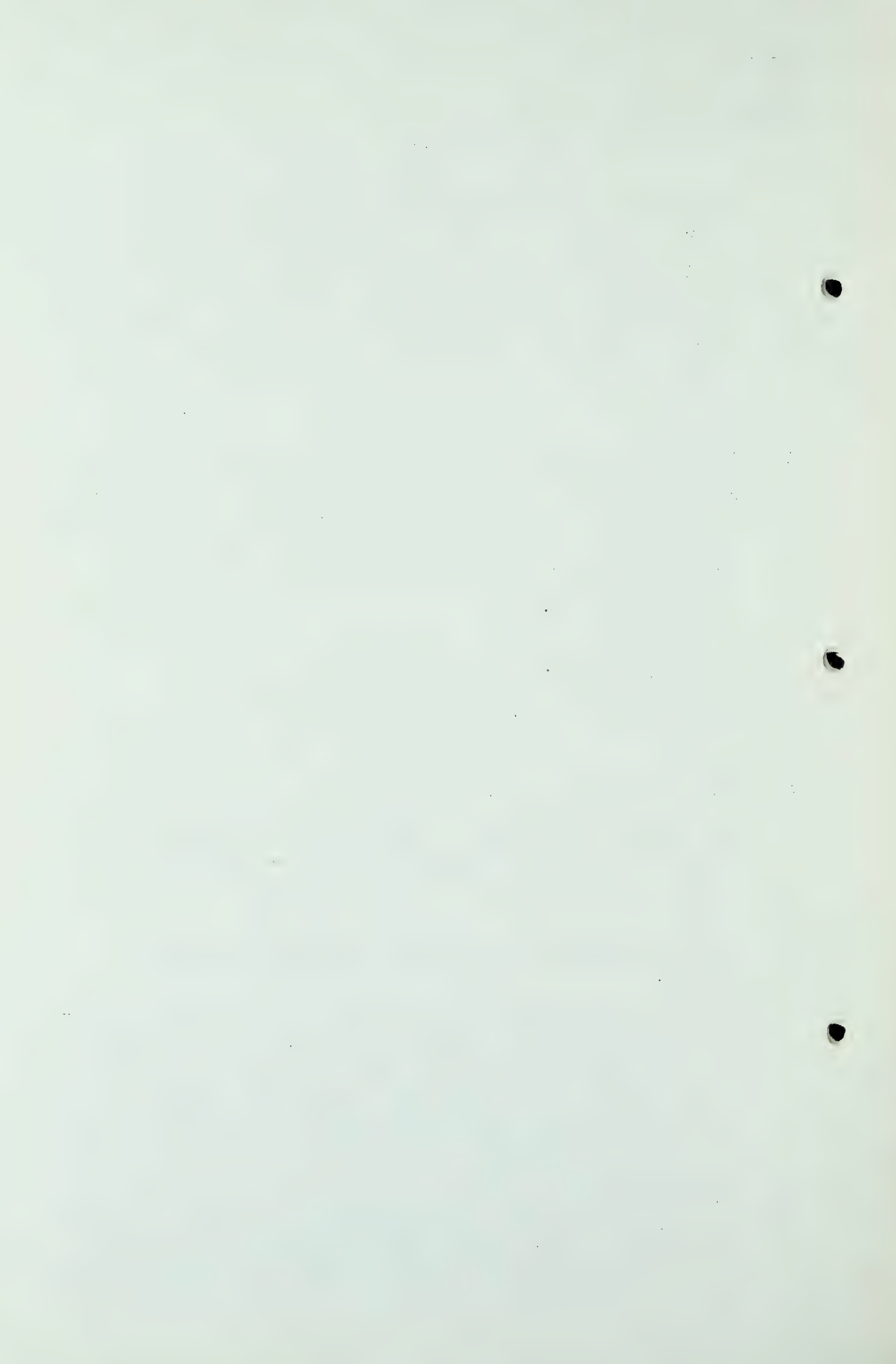
A I do not believe that would have done any good. I think the Gas Company would have been well advised to have adopted a policy that would have prevented waste of Turner Valley gas.

Q Yes?

A If such a policy could have been promulgated by the Gas Company.

Q I suggest to you that this Gas Company prevented themselves - perfectly businesslike and I am not criticizing them but it is as a result of this contract that the Gas Company could not take the steps that you are now advocating and said that they should have taken?

A No. No matter what the Gas Company did the people out there were going to produce that naphtha. They were not drilling wells for gas. They were drilling wells for naphtha. Naphtha



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was the thing.

THE CHAIRMAN: And did not the Gas Company have to tie up with Royalite so that they could have an assured supply?

MR. McDONALD: I am not criticizing it at all.

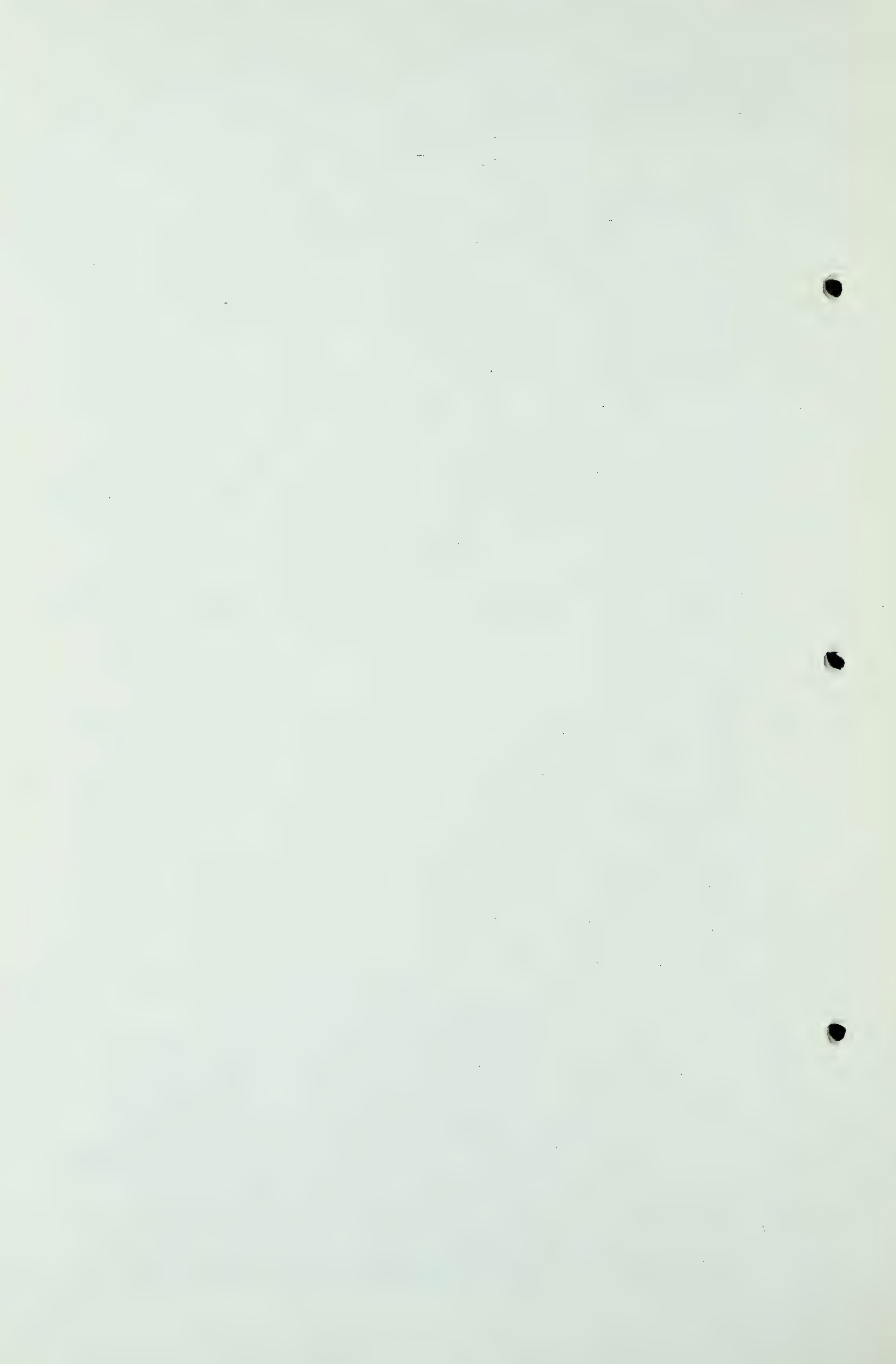
THE CHAIRMAN: No, quite.

Q MR. McDONALD: Is it not fair to say this, that because geologists like yourself or engineers like yourself made a mistake of the estimate of the total reserves in Turner Valley so that a pipeline could not be financed to sell this gas somewhere else and because of the exclusive contract which prevented the sale of a great deal of the gas that was being produced from time to time, you now advocate that those considerations should be used to reduce the price of gas paid to operators in the Valley?

A Well undoubtedly my early estimates of gas in Turner Valley were low. Undoubtedly. But people with money to build these lines do not build them unless they feel assured of a supply. You cannot feel that way about a field where 500 million feet of gas was going into the air every day, no matter what a geologist estimated. If my estimate had been a good one and suppose I had estimated something like $1\frac{1}{2}$ trillion cubic feet, 500 million going into the air every day, 175 billion cubic feet a year. 10 years.

Q I will ask you this, is this your experience in regard to gas conservation in the United States, that conservation has followed fairly easily and definitely when there has been a value established for the gas and a market provided?

A Conservation in the United States of natural gas has followed the law and regulation. In California the Lyons' Law passed I believe in 1931 put a stop to gas wastage.



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Prior to that time in 1929 natural gas had been for the first time piped to San Francisco. There was a market for gas but the market was not big enough to absorb all the gas that the oil fellows wanted to produce so they just let her go in the air, looking to their own immediate interests. The Lyons Law stopped that in California. Then you take it in Texas

Q May I just ask you a few questions regarding that? The operator had a chance, there was some market for gas and each operator had some market in which to put his gas?

A Now you take the Kettleman Hills in California the oil operators were seeking to give away gas. They tried to give away all the gas they could. They wanted you to take all the gas you could in order that they might produce oil and the reason you did not take the gas at a cent a thousand was because you had already contracted for all you could take and you could not take all the gas they wanted to give to you. In Texas the greatest waste of gas, voluntary waste without any excuse, was back in 1935-6-7 when some gasoline extraction plants were built in the Amarillo field, large plants, several of them. There was permitted to go into the air daily approximately 1 billion feet of gas and that was only stopped by law, regulation. People could not build enough pipelines to take that gas.

Q Is the Amarillo field a gas field or an oil field?

A The Amarillo field is a gas field with a certain amount of oil along its Northern border. It is always thought of as a gas field. The oil field there is not necessarily in the same bed. Some of the oil is in the same bed but there is little connection between the gas and the oil in Amarillo,

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less than there is in Turner Valley.

Q Now you stress conservation as being a matter in the public interest. Could not this situation have been in effect in 1932 and 1935, or from 1930 to 1935, that it was more useful to the economy of Alberta to produce this gas and produce the naphtha and gasoline from it than to save that gas by storage in the ground?

A Well I cannot say that it would have been desirable to have put in compressors in say 1930 capable of restoring the 500 million feet of gas daily into the reservoir.

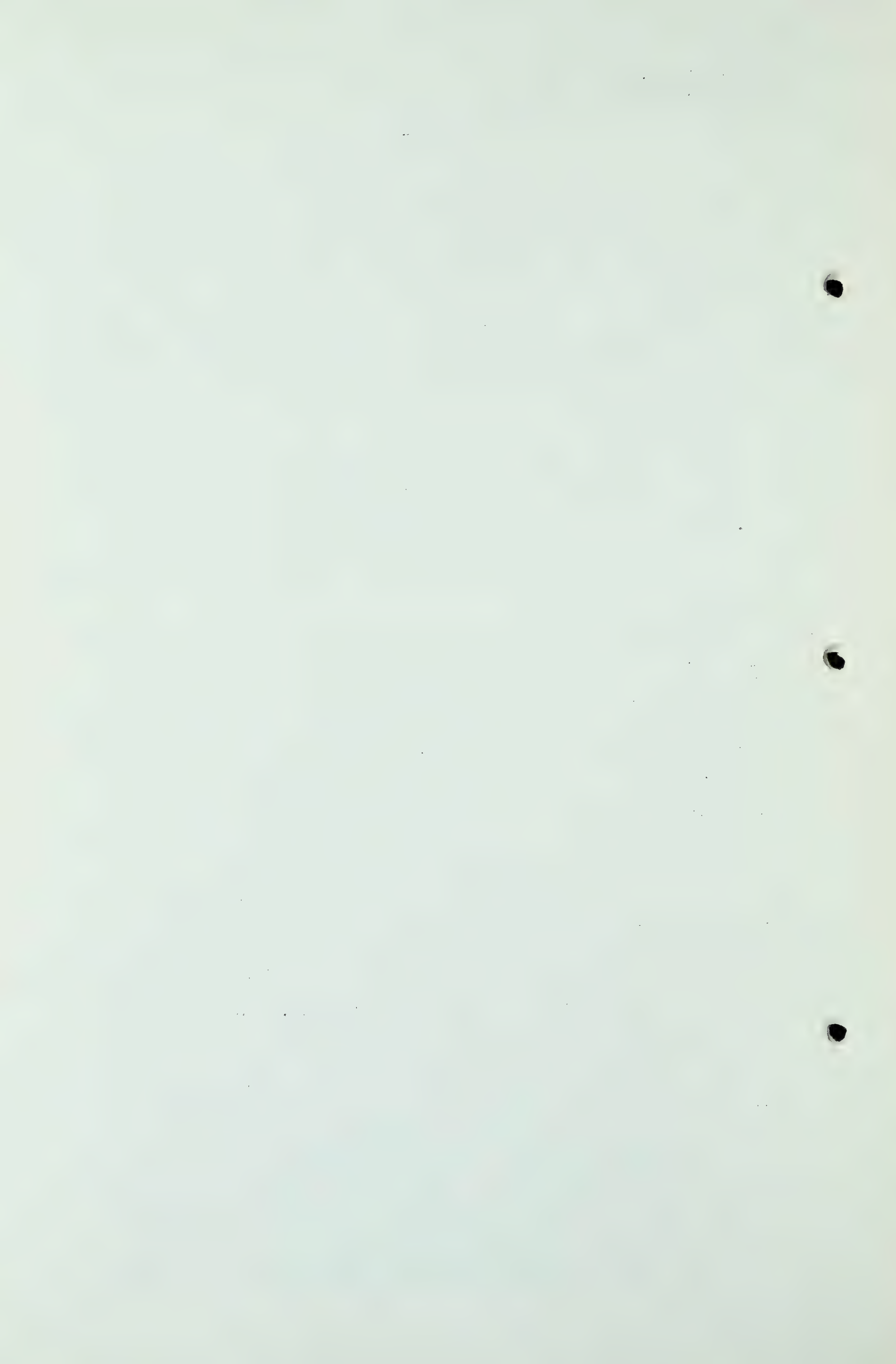
Q I am not thinking of storing it, I am thinking of restricting production?

A I am going to say that I could not go along with you about restoring the gas there, because you have 2000 pounds in the reservoir and the compressors would have reached all the way from here to Turner Valley. But I think it might have been a good thing for the people of Alberta could their authorities have seen down the line and restricted that production very very drastically. I think so.

Q I am only suggesting to you maybe that their thought was weighed by the parties who had charge and they decided they wanted naphtha and the gasoline for the benefit that was then going to ensue to the public generally. Is that not a consideration that should be taken into account if so?

A You mean should be not at any time take into account that it is proper to let people pursue their business, if it be an honest business? You are suggesting to me

Q No, I am suggesting to you that the question of whether this gas should be allowed to be produced in order to raise naphtha and gasoline to the surface was not better



T-3-11

Ralph E. Davis,
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economy for the Province of Alberta than to restrict production at that particular time.

A It was my view in 1931, expressed in the Hearing, that conservation was a desirable thing then. I believed in conservation in Turner Valley back at that time.

THE CHAIRMAN: I think we will adjourn until 2 o'clock.

(At this stage the Hearing was adjourned until 2 P.M.)

.....

(Go to page 5557)

Ralph E. Davis,
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2 P.M. SESSION

MR. CHAMBERS: To complete the record, Sir, I would like to tender as an Exhibit a certified copy of the Order of the Board of Public Utility Commissioners of the 26th of January, 1945, which approved that rate Number 6, and that will complete the record, and we will have copies made of it.

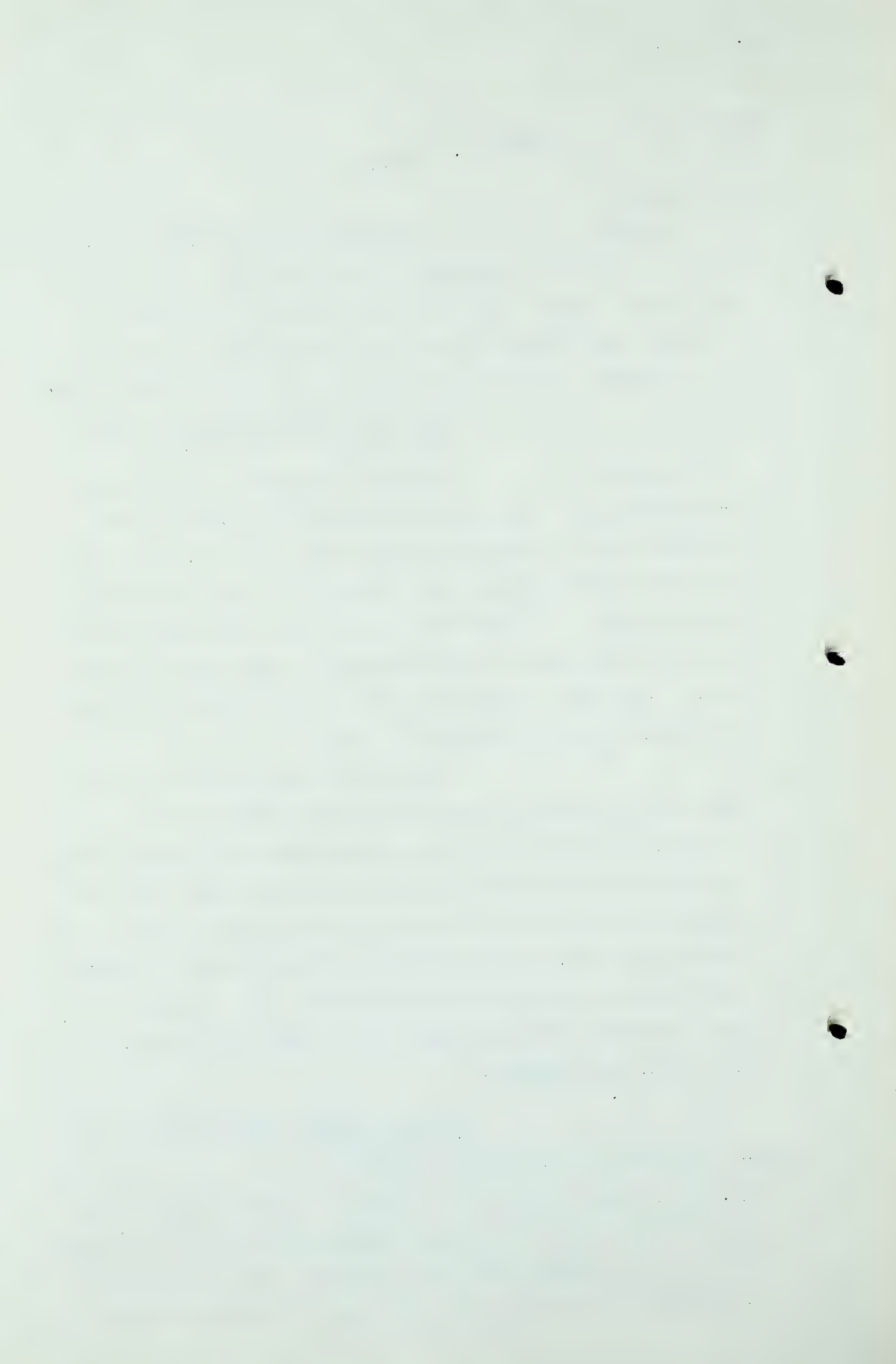
CERTIFIED COPY OF ORDER PRODUCED
HERE MARKED EXHIBIT 151.

THE CHAIRMAN: Since we adjourned and since I had reasonable hopes that we may be finished by 3.30, I have arranged with Dr. Katz that he will meet us at 4.00 o'clock, allowing fifteen minutes one way or the other according to how we finish. I personally would rather work from four to half past six than to come back and work from eight o'clock until some time at night, so that I have arranged for four o'clock if that is convenient to all.

There is one other feature I would like you to think about and tell me your opinion on it tonight, and that is we will discuss these two problems which I have mentioned and any others which you may have, and then should we consider the propriety of calling Dr. Katz as a witness tomorrow, so that whatever recommendations or advice he may give to the Board will form part of the record? You can think about that and tell me about it later on. All right, Mr. McDonald.

RALPH E. DAVIS, having been recalled,
cross-examination by Mr. McDonald continued:-

Q Mr. Davis, turning now to this question of the allocation of the gathering costs between the gasoline plants and the consumer, am I right in summarizing your statement, that you think such costs should be allocated on the basis of benefits received by



Ralph E. Davis,
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the gasoline plants and by the consumer?

A I dealt with that this way, inasmuch as I suggested it in the written statement, and that is an indication that it had my preference, to treat the gas stream coming from the wells and entering the gasoline plant as the raw material.....

Q Yes?

Aof that plant, and the stream of gas leaving that plant thereupon becomes the raw material for the gas consumer, and we have taken away from the stream a portion of it.....

Q Yes?

Awhich we will all agree you should pay for that.

MR. HARVIE: I am finding it rather hard to hear, Mr. Davis.

A I will try to speak louder. Now you followed that statement in the written testimony?

Q MR. McDONALD: Yes?

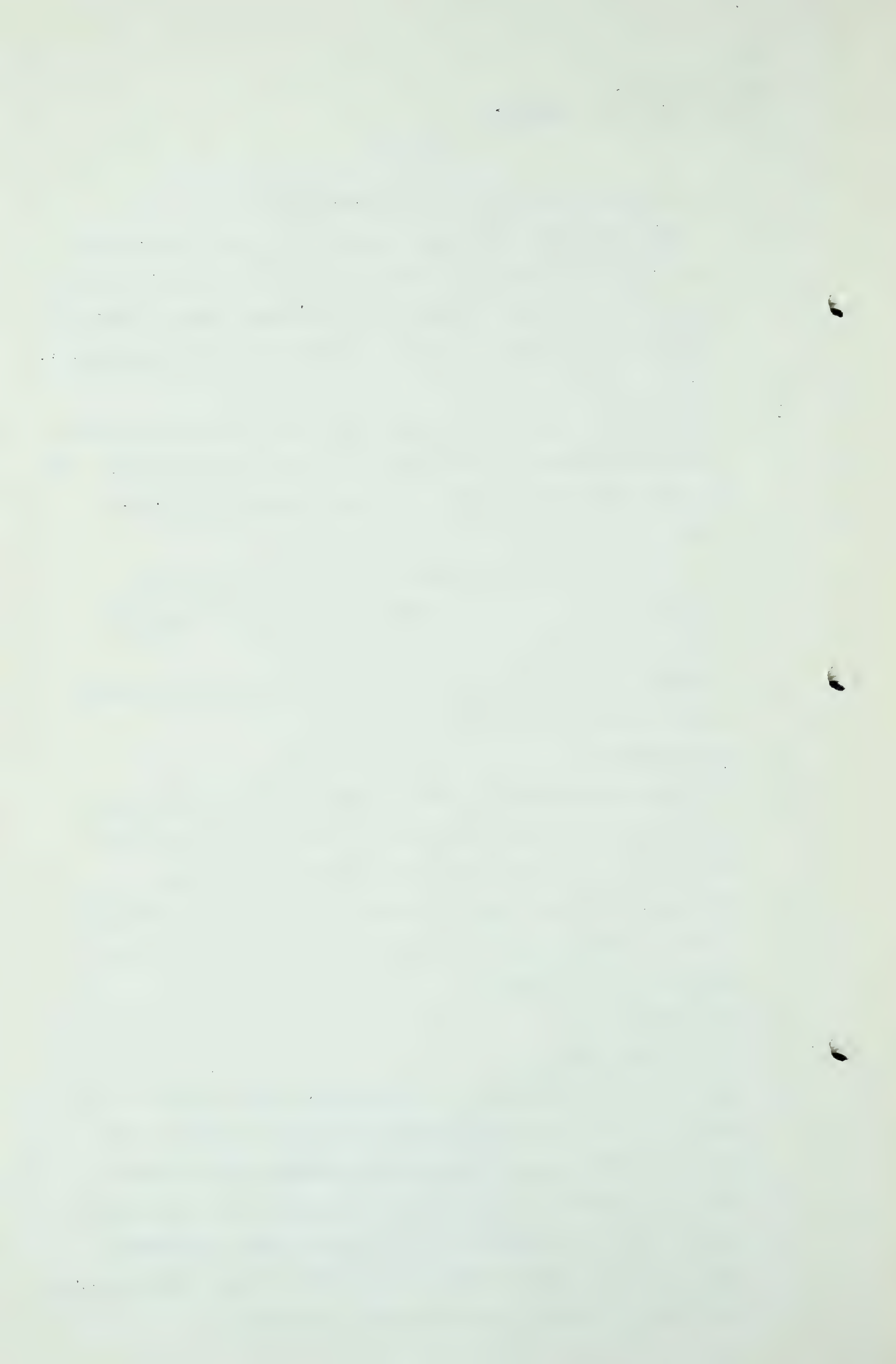
A Well that was the suggestion of mine and I have also said that any basis that is not on the face of it unfair is a basis that requires that he who benefits should pay.

Q Yes, and what I am trying to arrive at is what is going to be the measure of our benefits, is it the value of these products in each case?

A That is one way.

Q That is one way?

A And the other way is to go on a formula, that there is 100 parts in the stream benefitting the gasoline plant at the outlet and 90% benefitting the gas consumer, and the sum of the two is 190 and the gasoline plant would bear 100/190ths of the cost of gathering and the second party 90/190ths. Now that is a formula which is presented to you, which has as much merit as any other so far as I am aware.



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Cross-Examined by Mr. McDonald.

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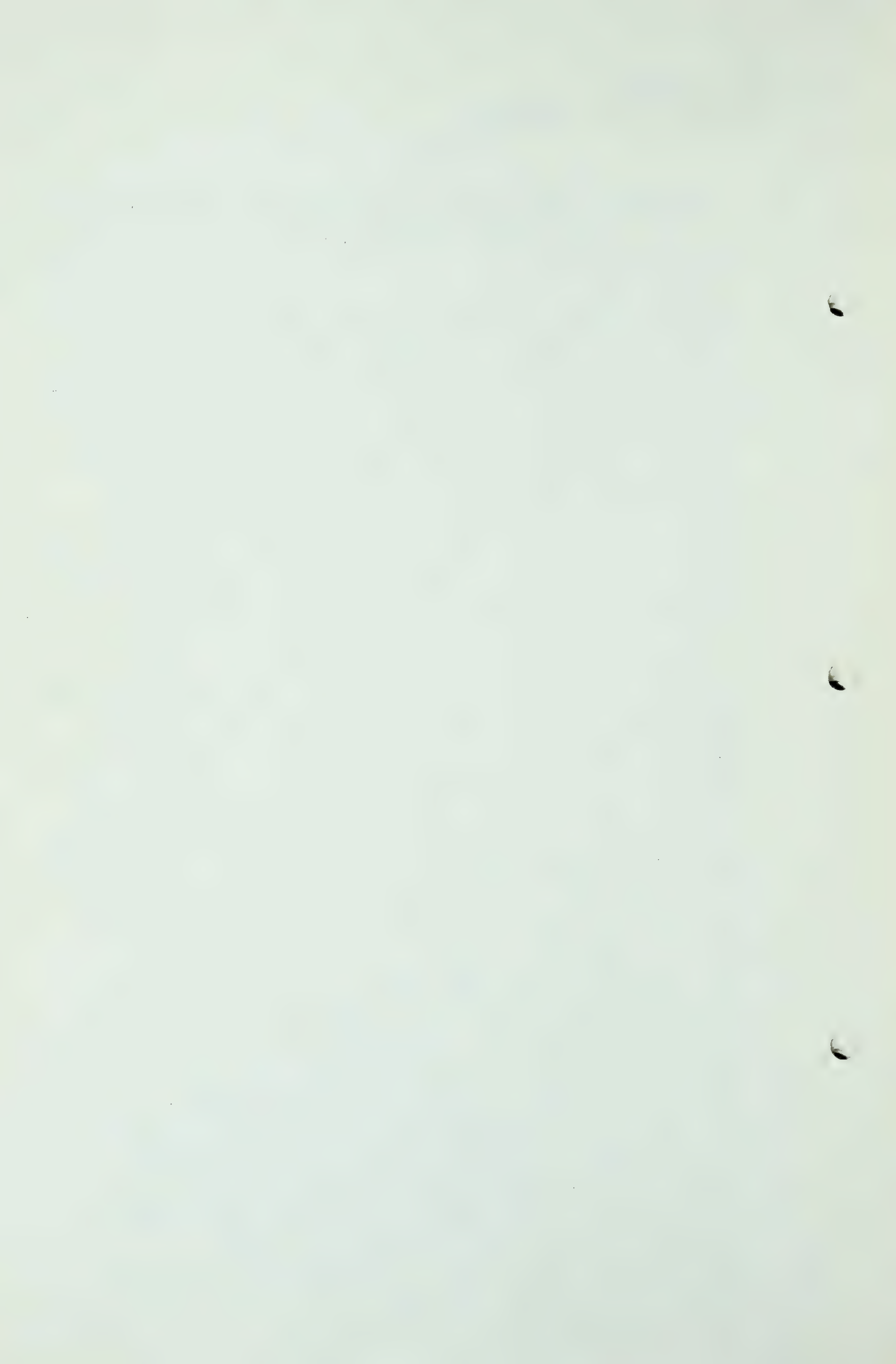
Q Well now, is there any principle behind that formula, or is it just an arithmetical statement, or is there any principle behind it?

A Well the principle behind it is this, again I am guided a little by the history of things. Prior to the connection between the operation of the gasoline plant and the gas distribution system, when the gas was going in the air, that stream of gas coming into the plant was certainly 100% the raw material of that plant. Now the only thing you have done after that is to make a connection with the gas pipe line where it goes through a scrubbing plant and compressor probably, or in this case certainly, and there you have a smaller stream. In one case maybe 90% and in another case maybe 85% of the original stream, and it just seems to me that there is as much basic logic in that as there is in saying "Well one gets x units of value out of it and the other gets y units of value", and those are two things that vary from time to time, we do not know how rich the gas is going to be, we do not know what the price of gasoline is going to be and it is a formula which, I might say, fluctuates a little whereas the first formula does not fluctuate at all. It is rigid, 100/190ths.

Q Well could not someone else look at it and say, as we have done here, "it is 10 and 90 and totals 100, and it should be 10/100ths," is that not as sensible as to say 100/190ths?

A Well it is an unfair division. It does not appeal to me as being fair. I do not believe when the gasoline operators have been able to bear the costs of, the whole costs of gathering gas, I do not believe it is fair when he suggests he would like now to bear only 10% of that cost.

Q I am just suggesting to you the arithmetical approach, as we have mentioned as 10/100ths.....



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A That is the trouble, there are so many arithmetical approaches to the problem, and the arithmetical approach leads to a conclusion which we know on the face of it is not right.

Q Now just going back to the question of benefits or realization in money, you did mention on the basis of the gross realization, that is the gross value of each product obtained, the price of gas is fixed by regulation but the price of natural gasoline is subject to fluctuation in the market, and that creates an uncertainty, and then you have a further uncertainty which occurs to me, and you might tell me whether you agree with it or not, in the case of gas there is no manufacturing element entering into the value of the gas, as it then comes out of the scrubbing plant or out of the absorption plant, but in connection with the gasoline there may be a variation in costs in the manufacturing of the gasoline, which would have to be taken into account?

A That may be, and that could be a variation in the costs of the gas stream, on this ground that you may start out with a stream, we will say, on a given system of 10 million feet per day and it might drop to nine or it might drop to eight next year, but it would be ascending on the M.C.F. basis. If you and I could look at it this way, we do not have this gathering system but we will say I am a Gas Company man, I am desirous of securing an addition to my gas supply and you are a gasoline plant operator in the business.....

Q Yes?

Ain the business of building these plants in suitable places. I might say to you "Here is an opportunity, here is a place where I can secure some gas and I can reduce my cost either by putting the plant in myself," which is not my line of business or "how would you like to consider putting

Ralph E. Davis,
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in a plant?" Now the Phillips Petroleum Company made a great business of that scheme. They built, I presume at least 100 plants, now I do not know whether it was 100, but plants all over Oklahoma, Texas and other places where the gas people did not want to build a gasoline plant. Phillips did the business and they specialized on it. Now if I came to you with that sort of proposition, and you said "That will be fine, Davis, if you will build a gathering line and bring it over to my plant and let me take out whatever I will take out, which I will pay for at its cost to you, and if it is only 10% of the total I will pay 10% of the gathering cost", you and I could not get together because that is not fair, your portion of the cost on that basis would not be fair.

Q Now that would depend upon the GPM content of the gas, to start with?

A That would be the business of the gasoline plant operator.

Q And it would depend upon the terms or the total cost of the operation of the gasoline plant?

A That statement would be true.

Q Now when we are speaking of benefits in this gross realization, or this realization approach, we are speaking of the net profit received by the gasoline plant as against the net, the value of the gas at the outlet of the gasoline plant?

A I do not think it would be necessary to go from the end of that gasoline plant on down through the scrubber plant on to the compressor plant and on to the pipeline into Calgary, to find out how much money might be made out of that thousand feet of gas reaching the Calgary distribution plant, I do not think we need to do that.

Q You do not need to go that far?

A No, I would be inclined to say "Here is some gas coming out

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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of the end of this gasoline plant".

Q And which has a certain value?

A And it is worth, let us say, 2 cents.

Q An arbitrary figure?

A 2 cents, and over here is a gasoline plant^{and} coming out of that plant is something that ~~belongs~~ to some other fellow and it worth the market price, say 6 cents.

Q And would you take from that 6 cents the cost of producing it, the $4\frac{1}{2}$ cents, so that you would have really a comparison of your total costs of a unit, of $1\frac{1}{2}$ cents for the gasoline, against the cost of 2 cents?

A As I have your question, Mr. McDonald, if you fail to make any net profit, you are going to shut down your plant.

Q Yes?

A That is right.

Q That would be the result?

A If you did not make any profit.

Q Yes, and on that basis, if the gasoline plant did not make any profit, on that basis, then there would be no unit realization to it and the 100% realization would be on the gas market?

A Now you run into a practical illustration of leaving out something on a formula due to the difficulty of reaching an answer, it is difficult,

Q Yes, I understand?

A To try and reason through on any one formula, but it seems to me if it were true that this gas is worth 2 cents to me, if I do not get it here I will get it somewhere else, it is worth 2 cents to me, and that amounts in the course of a day to \$100.00 worth of stuff to me. I am getting that.

Q Yes?

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Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

- 5563 -

A Now I believe if you are going to pay half the cost of gathering that gas, you should be entitled to get about \$100.00 worth to you?

Q Yes?

A In other words, that is kind of leaning over in your direction here, and saying that I think the unit value at the point right there is more controlling than is the gross.

Q Yes?

A I do not know but that is the way it looks to me.

Q Thank you. Now, Mr. Davis, in your statement you have referred to the prices at the field, in regard to some of the gathering systems or transportation systems in the United States, and there you were replying to Mr. Zinder's evidence in part; now can you give me this information in regard to, I think it is the Tennessee Gas & Transmission Company, how long is the pipe line that that company maintains?

A That is approximately 1250 miles.

Q Yes, and it runs roughly from what field to what centre?

A Well it extends from a point near Corpus Christi and Corpus Christi is about 250 miles in round figures Southwest of Houston, Texas, it starts at a point West of Corpus Christi in what is known as the Stratton-Aqua-Dulce Fields, that is where that pipe line starts, and gas is delivered into it there from the Stratton field, and it extends Northeasterly until it reaches Cornwall, West Virginia, and that distance is about 1250 miles.

Q And where are the main distribution centres on it?

A None. It delivers practically no gas short of its destination, practically none.

Q And what type of market does it serve at its destination?

A They have contracts, one is a subsidiary, the Columbia Gas &

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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Electric Company.

Q Is that a domestic distributor?

A Wholesale and domestic. They are a domestic distributor in Charleston, West Virginia, and other places but the most of that gas is handled in the wholesale market, delivered to other pipeline companies and that company takes slightly more than 100 million cubic feet per day, the other 100 million cubic feet per day is delivered to the Hope Natural Gas Company, which company also is a wholesale distributor and a retailer.

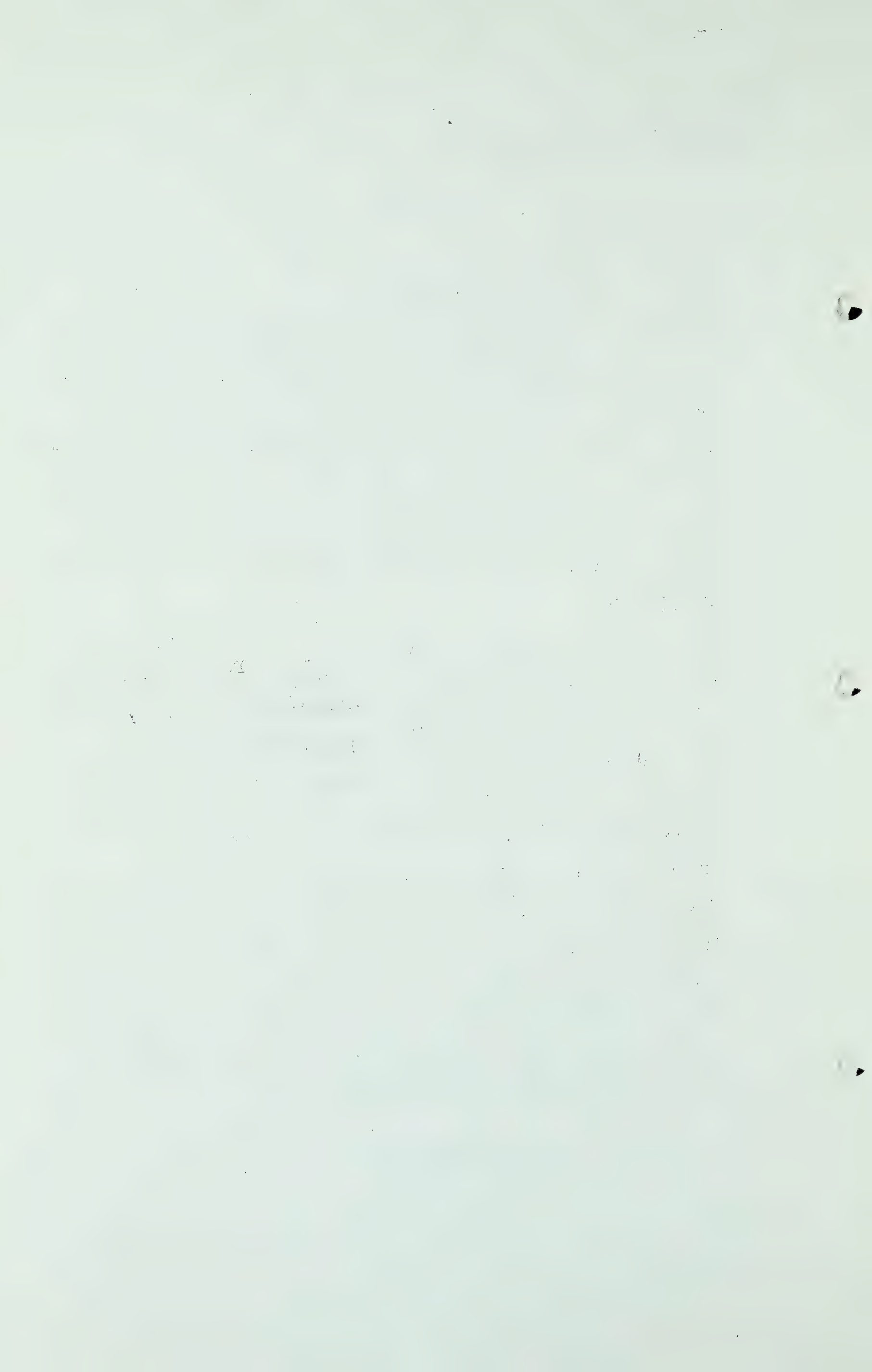
Q Yes?

A And that gas, I might say, reaches its market in, some of it in Pittsburgh and other cities in Western Pennsylvania, and some of it in Ohio, other in Cincinnati and Columbia.

Q So that in addition to the 1200 miles, there are pipe line distributor systems of these other companies added to the Tennessee?

A Not added to the Tennessee. The Tennessee Gas & Transmission has this pipe line, 1250 miles, and it delivers gas to Hope and Cornwall, West Virginia. It delivers gas to the United Fuel Gas Company, ^{at} another station, I forget the name of it, it does not matter, it is in the vicinity of the border between Kentucky and West Virginia.

(Go to page 5565).



M-4-1. - 2.20 P.M.

Ralph E. Davis,
Cross-Exam. by Mr. McDonald

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Q Would it be fair to say that this gas delivered through the Tennessee transmission lines, 60% of that is used for industrial purposes as contrasted to domestic consumption ?

A I do not think the figure would justify that statement.

Q Can you tell me the figure ?

A It is always a surprise to me when I see what a big percentage of gas is sold in the Appalachian region to industrial plants. I think something like 40% goes to industrial plants but it does not go to industrial plants for use in industrial boilers. I think the lowest prices - I may be mistaken - but at any rate industrial gas sold by the Peoples Natural Gas Company is not sold under a price of twenty-nine cents. If you cannot pay twenty-nine cents Mcf for gas you do not get the gas. I do not know the lowest cost per unit for the Peoples Natural Gas Company.

Q I have the A.G.A. service book. Can you pick that out for me ?

A I do not think I can do it any better than you can. Are you referring to what these people do with it up east ?

Q Yes, I would want to know if the end use is domestic or industrial ?

A It is both.

Q And your proportion is 40% industrial, would be a fair guess ?

A Yes, I may say that based upon the percentage of total sales in the Appalachian region. This particular gas mixed with other gas, I cannot call it this gas. Do you wish me to look in this book ?

Q No, we will deal with the National Gas Pipeline Company. Where does that originate ?

A It picks up gas at a point in Oklahoma and the place is known as Fritch station. It is a point across the line from Texas.

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Cross-Exam. by Mr. McDonald.

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The pipe line does not go into the gas field. It goes as near to the gas field as it can get without leaving the State of Oklahoma, and the Canadian River Gas Company and the Texoma Natural Gas produces, gathers and delivers gas to this National Gas Pipeline Company of America at Fritch Station in Oklahoma. That line extends northeasterly and ends within about fifty miles of Chicago. It comes to a point in the vicinity of Chicago where it makes its delivery to another pipeline. A pipeline that is used for carrying the gas from its point of delivery out to such points in the Chicago district as the gas is needed. Some of that gas goes to industrial plants, but most of it goes into the lines of the Peoples Gas Company of Chicago where it is used in enriching or raising the B.T.U. value of the manufactured gas, so that Chicago today has not a natural gas service, but a mixed gas service, about half way between manufactured gas and average natural gas in B.T.U. quantity.

Q The gas is used for commercial and domestic purposes ?

A Commercial and domestic and in order to obtain a maximum load factor. Whenever the requirements of the Peoples Gas Company as on a warm day in July their demand may then sink to its minimum. Any excess gas available in the pipeline is immediately made available to certain plants where it is used in industrial plant operation.

Q So that the load factors on the National Gas Pipeline Company is a very good load factor ?

A That is right.

Q About what is the average daily transportation figure ?

A I suppose it is something in excess of two hundred million.

Q Now what would be the daily transportation for the Tennessee

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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line.

A The Tennessee line. They put about 207 million cubic feet daily. The gas being measured at sixteen, seven-tenths pounds or 230 million cubic feet, it being measured at 15.025 pounds. I do not know where that figure comes from, sir, but it is in the contract.

Q Now the Michigan-Wisconsin Pipeline Company. What is the length of that line ?

A That pipeline has not as yet been constructed. The Company, the Michigan-Wisconsin Pipeline Company, has been organized for the purpose of building that line. The parent company owns the Consolidated Gas Company serving Detroit, Michigan. They own the gas company in Milwaukee, Wisconsin, Wisconsin Gas Company in Madison, Racine and Des Moines, Iowa, and many other places in the territory to be served. The pipeline has not been completed. I do not happen to recall the length of it. Maybe I can tell you in a moment. It might take me longer than it is worth. Let us say it is probably not less than twelve or thirteen hundred miles.

Q Yes, the gas being picked up in what State ?

A Yes, that gas will be picked up, most of it in Texas, if not all. It will be picked up largely in Texas and to some extent in the adjoining portion of Oklahoma.

Q And delivered for eventual distribution in Detroit, Madison and other places ?

A And Milwaukee and other cities, that is right.

Q Have you any idea of what the sales price is contemplated to domestic consumers ?

A To domestic consumers ?

Q Yes.

1. *Phragmites australis* (Cav.) Trin. ex Steud.

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• *Staphylococcus aureus* (Staph aureus) is a Gram positive cocci in clusters. It is a facultative anaerobe and is found in the skin, nose, and throat. It is a common cause of skin infections, such as abscesses, boils, and impetigo. It can also cause more serious infections, such as pneumonia, sepsis, and food poisoning.

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Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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A Well I think it will be approximately whatever it is right now in Detroit and I do not recall the price.

Q Can you pick it out of the rate service there ?

A I do not know that it is in this. You mean this. (Book)

Q Yes.

A I am not familiar with it.

THE CHAIRMAN: Can you find it yourself, Mr. McDonald ?

MR. McDONALD: I have not looked at it. It is the A.G.A. rate service. Yes, here is the rate service for Detroit, Michigan. Michigan Consolidated Gas Company. General service schedule No. 1. Six hundred cubic feet fifteen cents per hundred. Next fourteen hundred cubic feet eleven cents per hundred. All additional nine cents per hundred cubic feet. Then we go to large volume service, first one thousand, sixty-three therms or less nine cents per therm, down to next fifty-three therms, six cents per therm.

A Finally gets down to fifty-four cents a thousand cubic feet. Since you asked about it Mr. McDonald I am not aware of any plan to definitely reduce the price of gas in Detroit. It may result, that is uncertain.

Q Just look at the Peoples Gas, Light & Coke Company in Chicago. The general service classification No. 1, two therms fifty-eight cents. That would be in thousand cubic feet how much ?

A That would be about two dollars and half.

Q Down to three hundred therms at eight cents per thousand, that would be eighty cents per thousand, eight cents per therm would be eighty cents per thousand ?

A Yes.

MR. BLANCHARD: That is not used for heating purposes at that price ?

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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A Well gas in Chicago is used in certain types of heating such as space heating. Just like I have had in my bathroom, a little electric heater. The cost of heating with that electric heater is extremely high but for the momentary or quick availability of needed heat.

Q It is not used in furnaces ?

A Well I would not say it is not used in furnaces, but it is much more limited in its saleability than is gas in Pittsburgh. By the way, Mr. McDonald, I am mistaken right here and I want to correct this statement that gas is sold on a therm basis and inasmuch as the gas in Detroit and Chicago is not one thousand B.T.U. of gas in order to get a therm you would have to have more cubic feet and instead of selling at the price named per thousand cubic feet it would be at a lesser price per thousand, roughly about two-thirds as much per Mcf.

Q MR. McDONALD: Well I might have those worked out and put in in a different Exhibit. Now can you tell me about the United Gas Pipeline Company. What is the length of that line. You have given us the average price at which gas is purchased, then it is distributed over how many hundred miles of pipe line ?

A I cannot tell you how many hundred miles or how many thousand miles, but the most south-westerly place served by that Company in its continuous pipe line system is Monterey, Mexico, and an interrupted system of pipe lines extend north-easterly across the Gulf Coast region in Texas, across Louisiana, across Mississippi and Alabama and down to Tallahassee, Florida. I guess the total length of pipe line owned by that Company would run into several thousand miles, but gas does not travel several thousand miles. The gas that goes to Monterey probably travels

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Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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about two hundred and fifty miles from the nearest gas field and the gas that goes to Florida probably travels several hundred miles and those two items of cost would not add up to two or three percent of the total gas delivered. Most of the gas handled by the United Gas Pipeline Company travels an average distance of about two hundred miles.

Q Can you tell me whether, what percentage is used for industrial purposes as contrasted with domestic ?

A Only a judgment figure based upon my general knowledge.

Q Yes, any suggestion then ?

A Well I have this difficulty in doing that. The United Company supplies about forty percent of the gas of the Mississippi River Fuel and Mississippi River Fuel in turn sells gas and most of its gas to industrial plants but not all of it, and the United also sells gas to Southern Natural Gas Company which Company in turn sells large volumes of gas to industrial plants but also for distribution in Atlanta, Georgia, Birmingham, Alabama, and Athens and different other places. I expect it would take the statistical department of the United Gas Pipeline Company to figure that out for about a week and get the information.

Q It would be fair to say that the great proportion of this gas bought at three and a half is used for industrial purposes or a large proportion ?

A I would say eighty percent of it is alone used for industrial purposes or is sold wholesale to other pipelines.

Q Who in turn distributes it partly to industries and partly to domestic ?

A Yes.

Q Now then in your conclusion in your statement you summarize

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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and state:

"I see no justification for a revision up or down, of the price of seven and three-quarter cents per Mcf for the gas purchased in Turner Valley by the Canadian Western Company."

Now did you make any calculation of the rate base and rate of return and earnings that should be allowed to the Madison Company and the B. A. Utility Company before you came to that figure ?

A Well I had the advantage of reviewing the testimony presented by witnesses in this Hearing where calculations along those lines had been made by them. I did not make independent calculations. I rather looked at it from this view, Mr. McDonald, that at the time the Legislature enacted this Act there was in existence a going concern, a relationship between Royalite and the Canadian Western Gas, seven and three-quarter cents for gas merchantable gas, measured absolute pressure, fourteen pounds per square inch. That was the situation and I do not know there - I have failed to find in reviewing the problem either from a study of evidence submitted by others or from my own approach, independent of their evidence. I have failed to see any reason to think that price now we will say we are free from the price, if it was too high in the first place, we might be asking that it be lowered. The Board will set the price. We are free from it and I see no reason to ask that the price be lowered. I have seen no convincing reason for thinking that it should be raised.

T-4-1 2.40 P.M.

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

- 5572 -

Q Well I was interested in your statement here that in this Michigan-Wisconsin contract the price was 5¢ for the first 5 years and then a higher rate for the next 5 and a higher rate again for the next 5 and you refer to that as being a guarantee of supply for a future term. Should not that be something that should be taken into mind in dealing with the gas from Turner Valley, that it is going to be in existence, the supply is going to be in existence for a considerable number of years?

A Yes, I have always considered it highly fortunate for any pipe line company or any city dependent upon a natural gas supply to have a supply good for many years. I have also always considered it very good for the pipeline utility and in turn through them their customers that they have that gas supply tied up and contracted for a long time, not from day to day or week to week.

Q Yes?

A And that principle is recognized. The United Gas Pipeline Company you have just been bringing up, their present policy of buying gas is the Panella County, Texas field, is that anyone who will deliver gas to them and contract for 10 years deliver the gas at 1000 pounds or more may have 5¢ per M.c.f. 16.4 lbs. pressure. But if someone wants to contract for a short term, year to year, anything up to 5 years, it is the company's policy to pay 4¢. In other words it is worth money to the company to have a supply controlled over as long a term as possible.

Q Would you agree to this, Mr. Davis, that 7 $\frac{3}{4}$ ¢ price that was paid and that has been paid since 1928 and would therefore be a fair price in 1932 and 1933?

A Not unless it controlled the future. The only reason I ever

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Cross-Exam. by Mr. McDonald.

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thought it was a fair price was because it gave the gas company a long future.

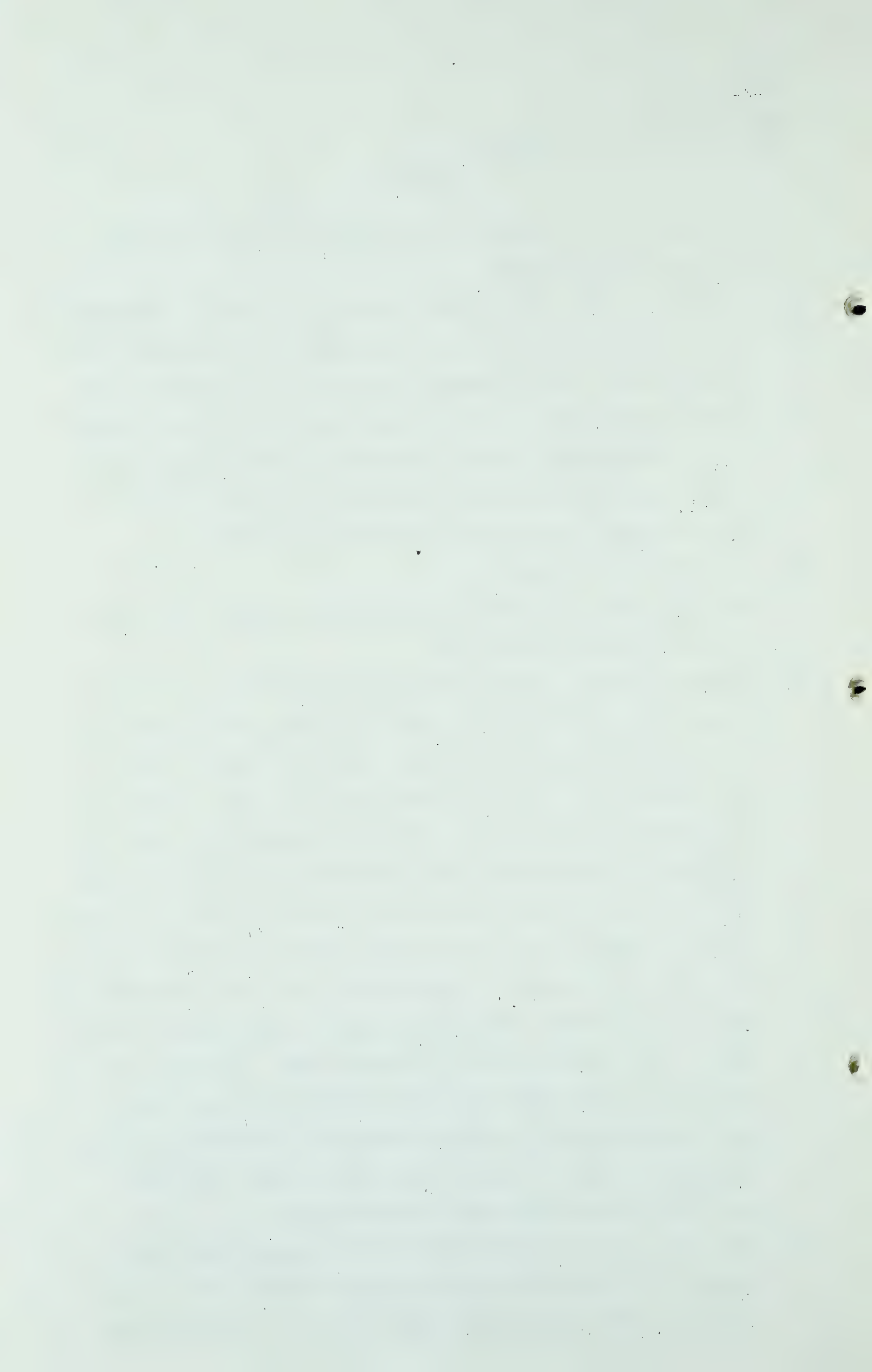
Q The only point I had in mind was that in 1933 your evidence was, and I take it the price was based on your advice to the Gas Company, that the reserve in this field was 230 or 240 billion cubic feet. Now contrast that to the situation we are in today where we have a reserve of 340 billion cubic feet. We have another 100 billion cubic feet of gas. I was wondering whether that would not influence you?

A The field is growing.

Q But the reserve is growing on which you based your price. There is more gas available?

A Somehow I have a feeling that 2 years ago or whatever the life of the field might be, the Gas Company had an awfully strong hold on its gas supply, I have no lack of faith in the judgment of this Board that they will reach a decision that will be unkind to the people of Calgary or to the Gas Company but nevertheless the Gas Company can hardly go into the security markets today and say "We control our gas supply for the length of the life of Turner Valley, which so and so says may be 20 years." I have found that these Gas companies when they go to the security markets for money they have to have a very definite control over the gas. They have to own the land or leases or have contracts that run for a sufficient number of years to assure the bond buyer that he is going to get his money back if the company makes the presumed earnings that they expect to make.

Q Then if I put this assumption to you. Assume that the reserve has increased from 230 or 240 billion cubic feet to 330 or 340 billion cubic feet and that whereas the Gas



Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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Company had a contract with one supplier, it now has a contract with a number of suppliers covering the additional reserves and that it is assured of a life supply to the extent of 25 years. Would that justify an increase in price to be paid by the Gas Company, assuming all those factors were permanent, hidebound and could not be varied?

A Well for 20 years we have been paying $7\frac{3}{4}\text{¢}$ or in the very first few years a little more and on a contract which we believe would give us our gas supply as long as the field is capable of delivering it at any reasonable basis of operation. Now you have lengthened the life of the field by conservation. You have added a few years. You are going to guarantee now that we, the people, are going to have this additional gas. Are you going to guarantee that?

Q For 8 years more?

A I say if you can guarantee us that 8 years I would be inclined to give you a little more money for the gas. But where is the guarantee?

Q I assume that you can have the guarantee?

A I think if we should have it

Q I recognize the argument you have advanced that there is a risk?

A There is an uncertainty that goes beyond anything that you and I can see today. We do not know. It may be a better thing for the people of this Province if some of that gas was used for purposes other than house heating. It may be and why ask them to pay for that today unless you can guarantee they are going to have it?

Q Would you be prepared, Mr. Davis, to give your offhand judgment as to how much money you would pay if all these

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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factors that I mentioned are permanent and can be relied on to be carried out?

A I would be inclined to do this with you. I am wondering how I would get along with a Board of Directors you know, not of the Canadian Western but of a gas company if I made just a poor recommendation to them. Not a poor recommendation to this Board but just came into their meeting as a consulting engineer and recommended something that perhaps the members of the Board or the majority of them thought was an unsound recommendation. Here, what would I recommend to the Canadian Western, not would I say here in this meeting?

Q Yes.

A I would say to the Canadian Western that these people tell us that the gas supply, without conservation, would have been good for what, 22 years?

Q About 16 years?

A Without conservation brought about by this plan or Board. 16 years.

Q Yes?

A Now you say you are going to raise it to 22 years.

Q No, 24 years.

A 24 years. Then I would say to the Canadian Western you make a contract with these fellows to pay $7\frac{3}{4}\text{¢}$ for 16 years. You would have had that anyway and now if they can add another 8 years' supply pay them as much for that gas as it would cost to find it elsewhere. If they want to know now where it is reach an agreement with them and give them $8\frac{3}{4}\text{¢}$ for that period, let us call it 9 or 10 years. But I would not be willing to go before that Board and recommend raising the price in 1946 for something they are going to

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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get in 1966.

Q Is not the cost of getting this additional 86 billion cubic feet, I think that is what the evidence discloses is additional gas, is not the cost of that just the cost of the gathering system that has been laid to get it and that is one thing that can be legitimately charged in the consumer's rate?

A I am sorry, I did not follow that.

Q Well I put this to you, that you can assume with me again that the installations that have been put in under the Orders issued by this Board have made available 86 billion cubic feet more gas reserves, part of it for immediate consumption?

A That is gas that would be going in the air right now.

Q Would be going in the air or would be lost to the Canadian Western system?

A Is that an amount of 86 billion feet to be put back into the ground?

Q No, made available to the Gas Company?

A Now I follow.

Q It would be fair then in your judgment, as I understand it, to add to the cost of the gas that is already covered by your contract what it would cost for your company to go out and develop a field that would deliver to you an additional 86 billion cubic feet.

A I was thinking more along this line, what would it cost us after those 16 years have gone to build a line to Kinsella? Would our gas then from Kinsella cost us more 30 miles North of Calgary, whatever the distance of Turner Valley is South, would that gas cost us $7\frac{3}{4}\%$ at that point or would it cost us 8 or 9 or 10 cents. Whatever that cost would be, I would be willing to pay you for Turner Valley at that time. I

Ralph E. Davis,
Cross-Exam. by Mr. McDonald.

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can see what you can call a limiting factor here, what the gas might be considered worth. The more practical limit is what will it cost us to go and get some natural gas, not a speculative, dreamy thing but what would it cost us to go out and buy this gas. We do not know what that would cost. But there is awfully good gas in Kinsella, recognized as sufficient for all the needs of all the cities in Alberta for more than 30 years, Edmonton, Calgary, Lethbridge and all. That being so and there is gas at Princess and here and there, I would not be willing to agree, Mr. McDonald, that the gas you are conserving is worth any more than that same gas would cost us if we got it somewhere else and at the time of that cost.

Q In other words it is a matter of cost to the Gas Company?

A I think in the last analysis cost is the fundamental factor, yes.

Q In your statement, Mr. Davis, you say "Nor do I see justification for paying more than 2¢ per M.c.f. for Turner Valley raw gas at the well head." How did you arrive at the 2¢?

A If I know of something existent and I am unable to convince myself that that existent thing would be better were it further to the right or further to the left, higher or lower, I conclude it is not very far from being about right. I have found the 2¢ figure is one which has been put in here by some people who were willing to pay it in the first place and pay it to some people who were willing to accept it in the second place. So I start in with 2¢. That is my starting figure and examining the problem and giving consideration to what gas sells for in other places, sour gas, in territories where there is an excess of gas over the

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Ralph E. Davis,
Cross-Exam. by Mr. McDonald.
Cross-Exam. by Mr. Fenerty.

- 5578 -

demand and knowing that lots of gas deos actually sell for less than 2¢ - of course here and there gas sells for more than 2¢ - but there is not very much sour gas sells for more than 2¢. Not much. I just kind of came to the conclusion, "well 2¢ is as close a figure as I can justify, up or down." That is the way it looked to me.

Q That is all.

.....

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. FENERTY.

Q Mr. Davis, I want to direct your attention for a moment to one of the propositions put to you by Mr. Chambers where he had occasion to refer to what I think we afterwards agreed was a hypothetical question, the preferred position of the City of Calgary we will say to this gas. Now you have some knowledge of the existing legislation under which the existing contracts have been abrogated haven't you?

A Yes.

Q You remember Mr. Chambers also in answer to me referred to the contracts taking them as indicating a preferred position to the city of Calgary. Now would you agree with me that perhaps the City of Calgary through the Gas Company did have a preferred position under those contracts as involving a price of 2¢ for gas at well heads. That is what the gas was being purchased for we understand by the Royalite Company from wells not their own That they did have an assurance of gas at $7\frac{3}{4}$ ¢ to the Canadian Western Company and they had an assurance of a certain supply. So that under those contracts they did have a somewhat preferred position?

A In that day before the enactment of this law, the City of

Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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Calgary and its Gas company had that contractual relationship that you have just described.

Q Yes?

A Today they have I believe an equally secured position with regard to the gas supply. I do not believe that this Board regardless of its membership, I do not just believe that an Alberta Board could take that gas away from the City of Calgary.

Q Yes, but is your understanding the same as mine and your knowledge of the situation

A The thing I want to know about is this, they are assured of the gas but I do not know at what price yet. If they know they are ahead of the Chairman of the Board. I do not believe he knows yet. Nobody knows what the price will be.

Q Yes.

A And if it had not been for this legislation the price would still be $7\frac{3}{4}\text{¢}$ I presume.

Q You have finished now?

A Yes, I have finished.

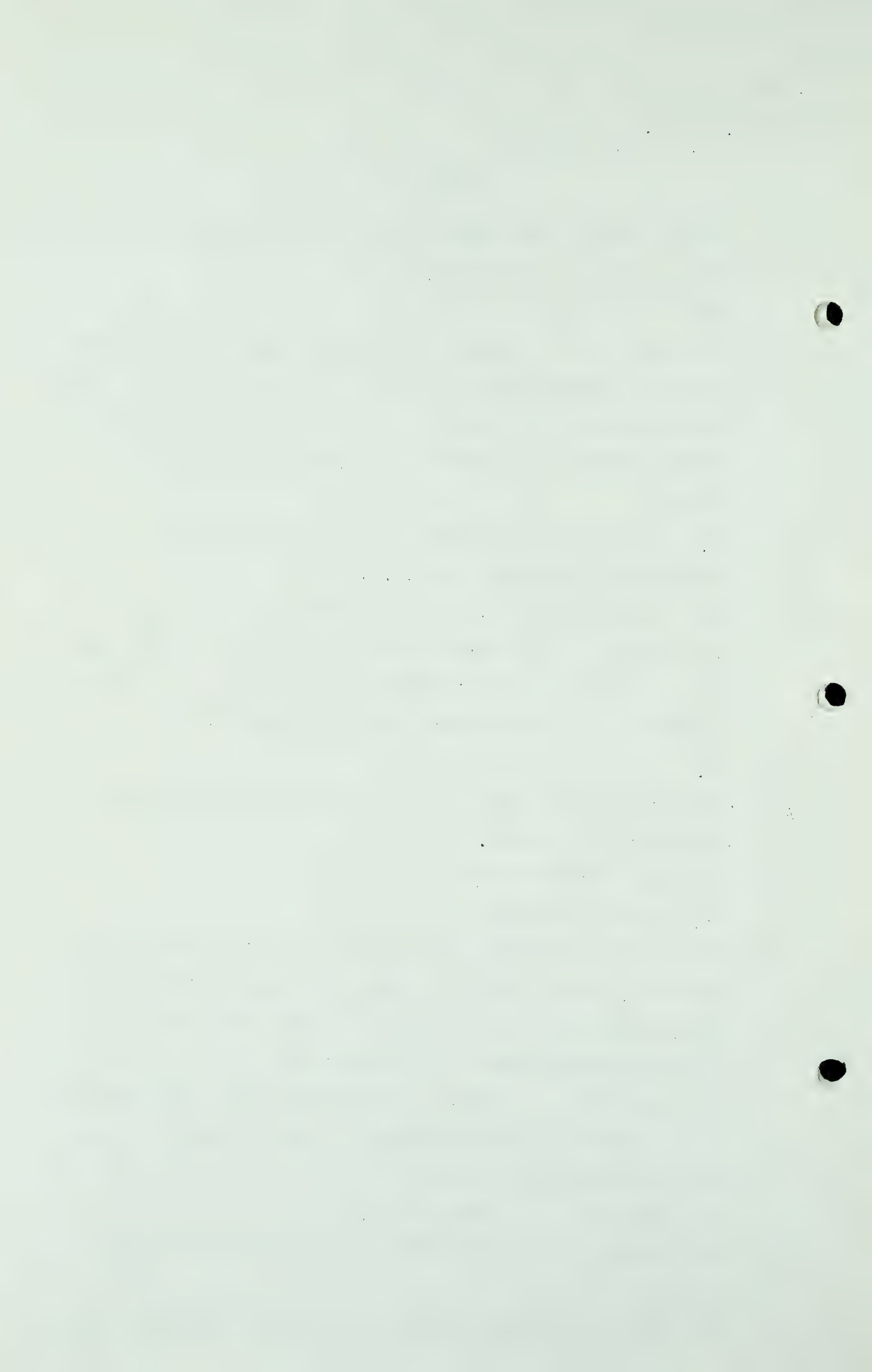
Q What I want to get at is and see if your mind goes along with mine, that first of all that preferred position that the citizens had through the Gas Company contract or otherwise has been abrogated by legislation?

MR. CHAMBERS: You are asking that as an interpretation of the statute. You are asking if that is what he understands the statute to mean?

MR. FENERTY: That is all.

A The Statute does abrogate the contract as far as I am concerned.

Q Is your understanding of the contracts that existed, which



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Ralph T. Davis,
Cross-Exam. by Mr. Fenerty.

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we will ask you to assume have been abrogated by statute, would provide a guarantee to the City through the Gas Company's contracts both a supply and a price at the well head.

A Well it is going just a little bit beyond my previous thinking on the subject. It guaranteed to the Gas Company a supply needed for its market so long as that supply was available in the field.

Q And two things?

A And a price of $7\frac{3}{4}\text{¢}$.

Q That is it?

A I think the Gas Company could have carried on and insisted upon them obtaining that gas even had the $7\frac{3}{4}\text{¢}$ become a regular hardship upon the sellers. I do not know what the situation would have been even though there was a contract. I think the history of the contract would have been taken into account by the Board.

(Go to page 5581)

C-5-1 3:00 p.m.

Ralph .Davis,
Cross-Exam.by Mr.Fenerty.

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Q I will leave it at this, any preferred position you know, was under those contracts which we have referred to which also fixes figures for the supplies of gas to the Gas Company?

A Yes, that is so.

Q Yes, and at the present time is it your conception of the situation that so far from having any long term contracts which would justify an increase in the price paid for gas to well owners over intervals of 5 years and 5 years, such as you referred to in your evidence, we have nothing in the way of a long term contract either that the citizens can rely on, or so far as you know that the Gas Company can rely on?

A We have nothing but a situation to rely on, the situation being that we are in Alberta and the Alberta Board will not be too hard on the people of this city.

Q Yes, we have something as the result of an Order of the Board, but at the moment we have not yet got the order of the Board dealing with the final question, and we have not a contract, that is the situation?

A You have not a contract which you can depend upon.

Q All right. Now you discussed with my friend, Mr. Chambers, what might be the position if the cost worked out on a certain basis, or the cost of service and so on, would result in a dollar M.C.F. to the consumer, you remember you were talking about that?

A Yes, we had something like that.

Q Would you say that it should necessarily follow that if that price or any other price were arrived at, increased price, that it would necessarily follow that the consumer and the Gas Company would have to be free to seek its supply anywhere where it could get it at a less cost?

Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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A Well I would insist upon it. I would insist upon being free, and I think that the people of Calgary would support the Gas Company, that they would go and get cheaper gas somewhere and not pay anybody a dollar a thousand for it.

Q If you did have a situation where the price of a dollar a thousand was arrived at, and the people of Calgary were compelled to either pay that price or go without gas, in other words that was the price of gas no matter where it came from, to the city, would you consider that that was conferring a benefit on the citizens of Calgary or would you consider it was requiring the citizens to maintain the gas and oil industry?

A Well the citizens would certainly just stop using gas, there would not be any gas service left in the town, a few people would use it for cooking, maybe the hotel would but there would not be very many people who would heat their homes with that gas. I would not think I would were I here.

Q What I am trying to get at is this, and let us assume for the moment, we have an offer here for gas to the Gas Company of $7\frac{3}{4}$ cents, should that not mark the limit of any order that should be made as to the price of gas?

A You are referring to an offer by some third party?

Q Yes?

A No, I do not believe that that would be the limitation.

Q As long as they were free to take it, would that be it?

A Well even if they were free to take it, you would have to show me that the source is competent to.....

Q Oh yes.

A You have to show me that the source of gas is competent to last the city 10 or 15 years, not just some third fellow coming in here from Lethbridge and saying "I will sell you

Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

- 5583 -

gas at 5 cents."

Q You would have to have responsible and competent people?

A You would have to have responsible and competent people to take over and render the service now being rendered, and I would say that offer would be pretty hard to, you pretty nearly would have to meet it, I would think, if it were bona fide.

Q And you will agree with me, will you not, if such a responsible party were to make such an offer....

You could not possibly have a situation that other communities might get a supply of natural gas, Alberta natural gas, at, we will say, one price, that Calgary would be compelled to pay another price, a higher price, a price higher than other responsible interests have offered to supply it for, you could not possibly have that situation, could you.

A Well I could easily understand that the price might be different as between two cities in the same Province, in two cities the prices could well be different, I do not know, take a town like Bow Island, for example, or Lethbridge, or this place, if Lethbridge and Calgary were not on the same pipe line system, I suspect the price of gas would be quite different in the two places.

Now I would not be disturbed if some town in Alberta got some gas at less money than Calgary got it, nor would I be disturbed if some town in Alberta had to pay more. The circumstances in each case might justify a difference, but what I am saying to you, on your main question of the last few minutes, I do not believe there is any limit to what this Board should consider fair, because some other company is offering gas at 6 cents.

Q I do not think I made the thing clear.

Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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THE CHAIRMAN: . You have three minutes to go.

MR. FENERTY: I am hedging a little on that now.

Q I want to refer you to a statement on the first page of this Report:

"Of these two purposes that of conservation, I believe, must be considered the more important, because the result of conservation is important to the citizens of the Province generally; whereas the division of the market is important to relatively few people."

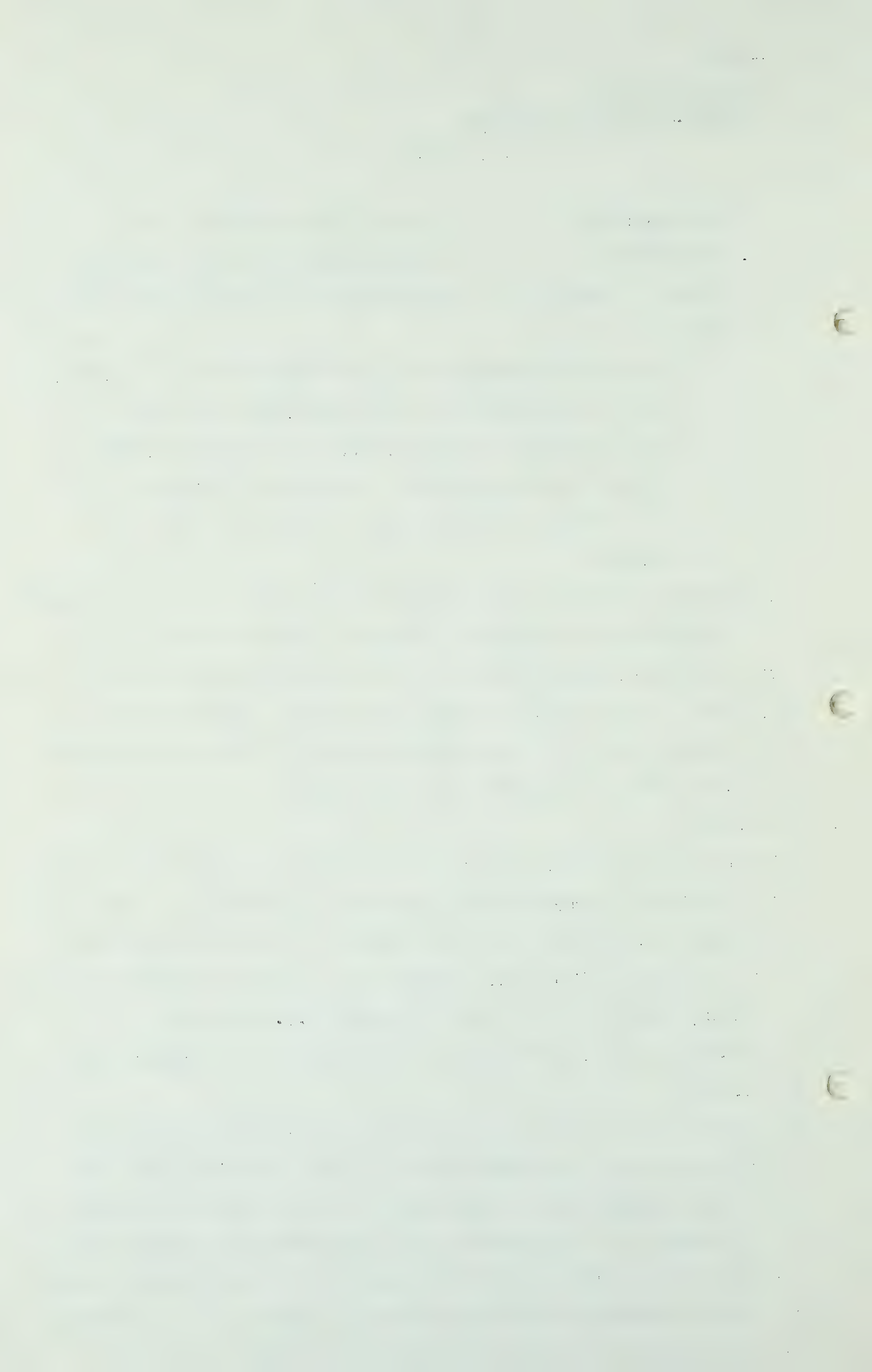
Now the division of the market is the place where the citizens of Calgary, as citizens of Calgary, as distinguished from citizens of Alberta as a whole, are affected, is it not?

A Well the citizens of Calgary are vitally concerned with conservation of the gas supply in Turner Valley, everyone of them. So are the people of Lethbridge.

Q Yes?

A Now the people of Calgary and Lethbridge, and for that matter the people of the Province generally, except for a relatively small number, have no great interest in whether that market out there be supplied completely by the old Royalite or whether it be supplied by the Royalite and the G.O.P. and a few others. The people generally have no personal interest in that.

Q Now I want to see if I have your thought here, and here is what I took from that, and tell me if I am right, that is that conservation is important to the citizens, generally speaking, but I suggest to you that conservation insofar as it affects John Smith on the North Hill in his bungalow there, as an individual burning gas in his furnace, it is important to him only if he can get gas at an economic price, it is



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important to him in that it will provide him with gas at a reasonable price and not otherwise, is that not so?

A No, I believe that conservation is important to all the people and not just because they can something for a little less money for a month or two, but just broadly speaking. I think it would be important to my grandfather if he had any interest in his grandsons.....

Q I am afraid I did not make my point clear?

A I think he would have had an interest in conservation and would have taken a little better care of the old farm.

Q I say I am afraid I did not make my point clear, I have been agreeing with you that it is important to him in his function as a citizen of Alberta, as a citizen of the Province generally, but I am asking you now, as an individual burning gas in his furnace, and I say in that capacity the importance of it lies in him being able to get that gas at a price sufficiently low that he can use it as a fuel?

A I can agree with you that conservation of Turner Valley gas is more important to the man who happens to be using some of that gas than to some fellow who lives down in, where, Bow Island, and does not use any of it.

Q Can I illustrate it this way.....

A But I still think it is important to all of us.

Q But can I illustrate it this way, take an extreme figure of so much, if the result of conservation means or requires a price of \$5.00 per M.C.F. for Turner Valley gas in this man's furnace, is conservation of any importance to him so far as heating his house is concerned, that is what I am trying to get at?

A Not if it costs him \$5.00, he does not care then whether there is any gas there or not.

Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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Q What?

A If gas costs \$5.00 a thousand, he would not care whether there was any gas in the world or not.

Q Then you will agree with me, will you not, that as an individual burning gas, it is important if he can get it at a reasonable price, - as a citizen of Alberta he is interested in it as a whole, but is that not fair?

A Oh, it is important that we have a gas supply for a long time, that is the reason it is important to the people as a whole.

Q All right. I will leave that, Mr. Davis. Now, Mr. Davis, a statement that Mr. McDonald suggested to you that in repressuring, which would be done by the well owner, that is an oil well owner, it would be done because of the benefits he would get from it in greater recovery; I am going to suggest to you that in many jurisdictions, and noticeably in Texas where this situation has come up and been discussed, that he does repressuring because he is required to do it if he wants to operate beyond a certain production?

A Well Mr. McDonald's question was to this point, would an oil operator anywhere repressure, assuming now he was not required to do so, unless it was of some benefit to him?

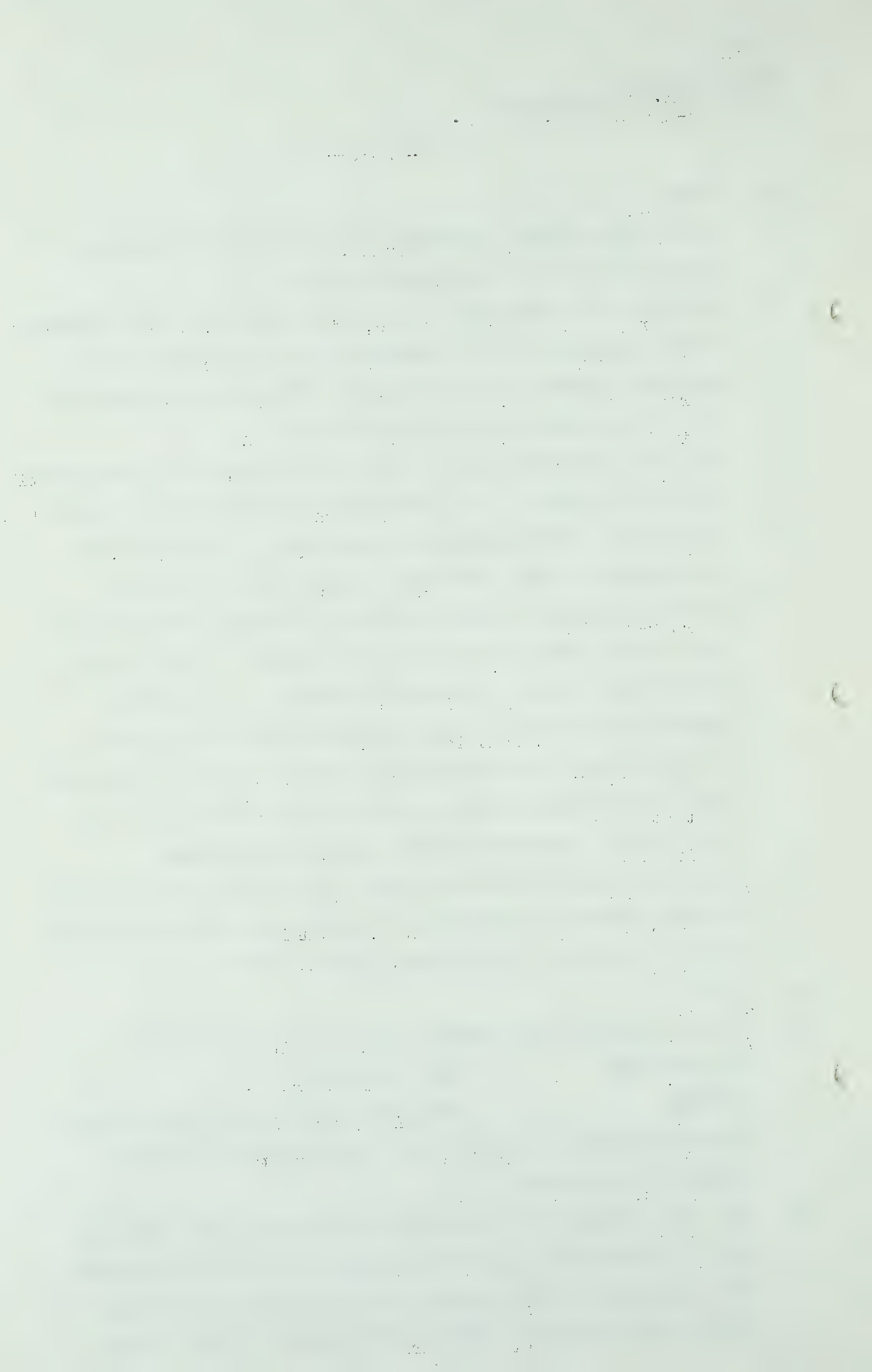
Q Yes?

A I think that was his question, was it not, Mr. McDonald?

MR. McDONALD: That is right.

WITNESS: And your point is that some of these fellows repressure because they have to or shut in their wells, is that right?

Q Yes, and I suggest to you that both gas operations, with a view to recovering the gasoline content, and oil operations with a view to recovering oil, where the ratio is in excess of 10,000 cubic feet per barrel, are conducted by well owners



Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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under a statute of Texas and elsewhere, because they want to get those recoveries and where it involves repressuring at their own expense, do you know that to be so?

A Yes, that is true. They are, therefore, permitted to produce more oil, that is right.

Q And they do conduct those operations in order to get gasoline in one case from a gas well, and excess oil production in the case of an oil well?

A That is right.

Q And they repressure and pay their own expenses in order to get that excess production?

A That is right.

MR. FENERTY: Now if the Board pleases, just another moment,

Q MR. FENERTY: You remember that we had some discussion here in the first instance by my friend, Mr. Blanchard, and with Mr. Zinder, in connection with the Texas statute, and we had some discussion with Mr. McDonald and Mr. Davies with respect to this Texas statute and the Texas Statute itself is one document, it occupies in Summers' Oil & Gas, the 2nd Edition, which I have in my library, some 60 pages, but the essential part of it is a recent amendment dealing with the operation of oil and gas wells and repressuring, and my advice is that that is contained in Article 6008 which is a matter of two and a half pages, my information on the subject from the Statute and from correspondence which I have had with one of the leading oil firms in Dallas, where these matters come up quite often, and I was wondering if perhaps the safest way of dealing with the Statute, instead of discussing it unduly, is perhaps we might put it in on the basis that that is so, without formal proof.

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Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

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MR. CHAMBERS: So far as the formal proof of that document is concerned, certainly that is quite all right, but I do suggest it is pretty dangerous to prove to this Board, or for this Board to take it as a fact, that it is the law, either statutory or otherwise, of a certain part of another country, in other words, I say it puts us in the position where we have to go and do a lot of checking to see whether there is something else. Now bearing that in mind, I have no objection to you putting it in, but the value or the weight of it, or the weight to be given to it, is, of course, another matter.

MR. FENERTY: Certainly, that is as to the weight, but what I am suggesting at the moment is we have had quite a bit of discussion about what they do or what some people considered as recent and enlightened legislation and I was anxious for the Board to get the actual facts as to what we are discussing...Now I would like to go further, and this might meet with some objection, I would like to go to the extent of proving some of this foreign law by letters, rather than by calling someone to go on the stand.

MR. CHAMBERS: Of course, Mr. Chairman, I do object strenuously to that procedure.

MR. FENERTY: I was just wondering if I could do that, there is not much dispute about it.

MR. CHAMBERS: There might be if we got this man in the box here.

Q MR. FENERTY: Now with the permission of the Board, I am going to ask this witness several questions along the lines that my friend asked, as to his understanding of how it works out, I think he was talking about that, and I will take only a minute or two, if that is satisfactory, but I will

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Ralph E. Davis,
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tell my friend now I am reading from these letters which I would like to put in.

Q MR. FENERTY: Is it your understanding.....

MR. CHAMBERS: In other words now you are going to have this witness prove the law.

MR. FENERTY: How it has worked out. I did not want to take him into this.

Q MR. FENERTY: Is it your understanding, Mr. Davis, that the cost of repressuring must be borne by the well owner, that is out of the working interest, that is under this Texas statute?

A You have it that the repressuring is not an obligation.

Q Perhaps you have read the whole and if not I may have misled you. Let me give you the rest of that sentence:

"The cost of repressuring must be borne by the well owner, that is out of the working interest. While no statute or regulation says that the well owner must pay the cost of repressuring in so many words, yet the statute and regulations forbid and place a penalty upon operation of the wells in contravention of such statutes or regulations. Hence as a practical matter, the operator of the well must either dispose of the residue gas in one of the authorized ways or else not produce any such gas."

MR. CHAMBERS: Now, as I understand, you are asking the witness whether that is his understanding?

Q MR. FENERTY: That that is the way they work it out there.

A Well as a matter of fact the way they work it out, somebody comes along and wants to build one of these gasoline plants,

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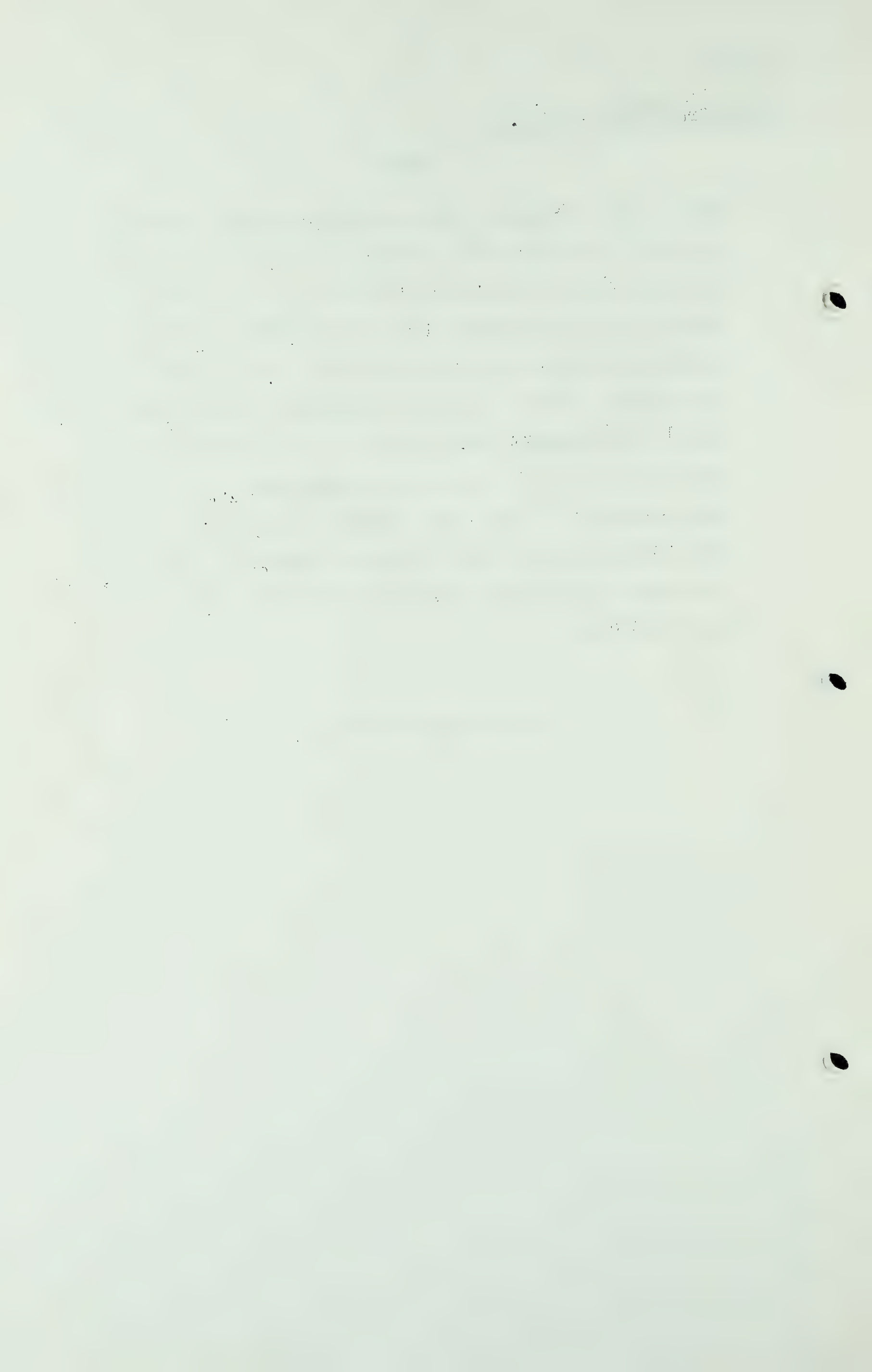
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Ralph E. Davis,
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and he goes and makes a deal with the people who own a gas well or an oil well or whatever it is, and the fellow who puts the gas back in the ground is the fellow that takes on the obligation to do it, he knows he will not be permitted to blow it up in the air. If he has no place to sell it, then he has the equipment there to put it back in the ground. Now that may be the fellow who owns the well or it may not be the fellow who owns the well, or he is merely the supplier of the raw material to the plant owner who operates there, just the same as the G.O.P. operates down here. Now have I made that clear?

(Go to page 5591).



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Q I just want to get a comparison from what I have here. I am sure it would enlighten us. My understanding and my interpretation of these sections which may be quite wrong, that in Texas in the first place my understanding of it is that in the case of a gas well where natural gas is produced and processed to get gasoline, the residue must be marketed or be repressured ?

A That is right.

Q My understanding is that in the case of an oil well -

A That is in the case gas is not casing head gas from oil sand.

Q Is not what ?

A Is not casing head gas from an oil sand. You were dealing with -

Q That is just in the gas well ?

A Any gas that is taken from the ground that comes from what we call a dry gas field, that is gas not associated with gasoline or petroleum production then that gas must be marketed or put in the ground. Now as to casing well head gas.....

MR. CHAMBERS: I do not know that the witness finished his answer.

THE CHAIRMAN: Well I may say that I am going to do what is to be done not on account of what is done in Texas or Timbuctoo or any other place.

MR. FENERTY: Then I am going to drop that right where it is, except that my friend had agreed with me that I put in this one section.

MR. McDONALD: We are all at sea as to what the laws of Texas are.

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THE CHAIRMAN: That is right. You may put in the calendar if you wish.

MR. FENERTY: Have you any objection ?

MR. HARVIE: Yes, I do not think it will do any good to us.

THE CHAIRMAN: Mr. Fenerty, we have so many irrelevancies on the record that one more does not matter. So put it in if you wish.

MR. FENERTY: Well I don't know that I am entitled to prove a Texas statute.

MR. HARVIE: I don't know what it is. A Texas statute takes up sixty-four pages of typewritten book and you have only two pages.

MR. FENERTY: Well I don't want to lose my copy.

MR. HARVIE: Well what you are putting in is not equivalent to sixty-four pages.

THE CHAIRMAN: Well if some one objects to it then I am not putting it in as an Exhibit. Unless someone will prove it as a law of Texas and I don't know what benefit it will be to me if you prove it is a law of Texas.

MR. FENERTY: Well it does seem too bad that other Counsel have examined on things out of which they might get benefit and I have the entire statute which showed what other public statutes are dealing with this repressuring on the basis that it is the oil producers and I do not say this Board has to follow, but when they talk about jurisdictions I would like to be able to tell them exactly what the jurisdiction is.

THE CHAIRMAN: I think you will agree that while we have broken all the rules of evidence as I said once before, we

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should not pick up the fragments and throw them out of the window and now when you wish to prove what the law is in a foreign country and someone objects to you doing it by merely filing a copy of the statute, I think I have to give effect to the objection.

MR. HARVIE: I have no objection to the statute being read into the record or any form at all, but I do object that a sixty-four page statute being summarized by some person I don't know who.

MR. FENERTY: Oh no, pardon me.

THE CHAIRMAN: He is not asking that.

MR. HARVIE: You said this and that is all I saw.

MR. FENERTY: The statute in full at the time it existed is printed here. It has been amended since it was printed with this three page addition.

MR. HARVIE: Oh if it is a complete statute I have no objection.

MR. FENERTY: I can get this in, I think if it is in print.

THE CHAIRMAN: Well Exhibit 152 then is Chapter ^{what} 28 of the Statutes of Texas.

MR. FENERTY: But not this book. I will tender it at a later date, Volume 5 Somers Oil and Gas.

THE CHAIRMAN: No the title of the statute.

MR. FENERTY: Oh here it is, Chapter 28, Vernon Texas Civil Statutes, but it is Chapter 28 of the Statutes of Texas. I do not know how to describe it beyond that.

MR. CHAMBERS: You should be able to tell us what you are putting in.

MR. FENERTY: It is referred to in full in the volume which

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is in the library of Somers Oil and Gas, Volume 5 at Pages 459 to 533, both inclusive. Everybody tightens up when I put in something and they have been putting in things for months.

MR. CHAMBERS: I just wanted to get what you are putting in. Is it the entire statute ?

MR. FENERTY: Yes.

MR. CHAMBERS: That is fine.

THE CHAIRMAN: And the Amendment ?

MR. FENERTY: Yes. Article 608, and so there will be no trouble I will send down for the entire printed statute.

MR. HARVIE: And what is the Amendment ?

MR. FENERTY: Article 608.

MR. HARVIE: Of what year ?

MR. FENERTY: As amended in the Acts of 1939, Texas Legislature, Page 501, Section 1. I will get that entire Statute up here and we will all proceed in accordance with the evidence.

THE CHAIRMAN: And those with the time and inclination may read it.

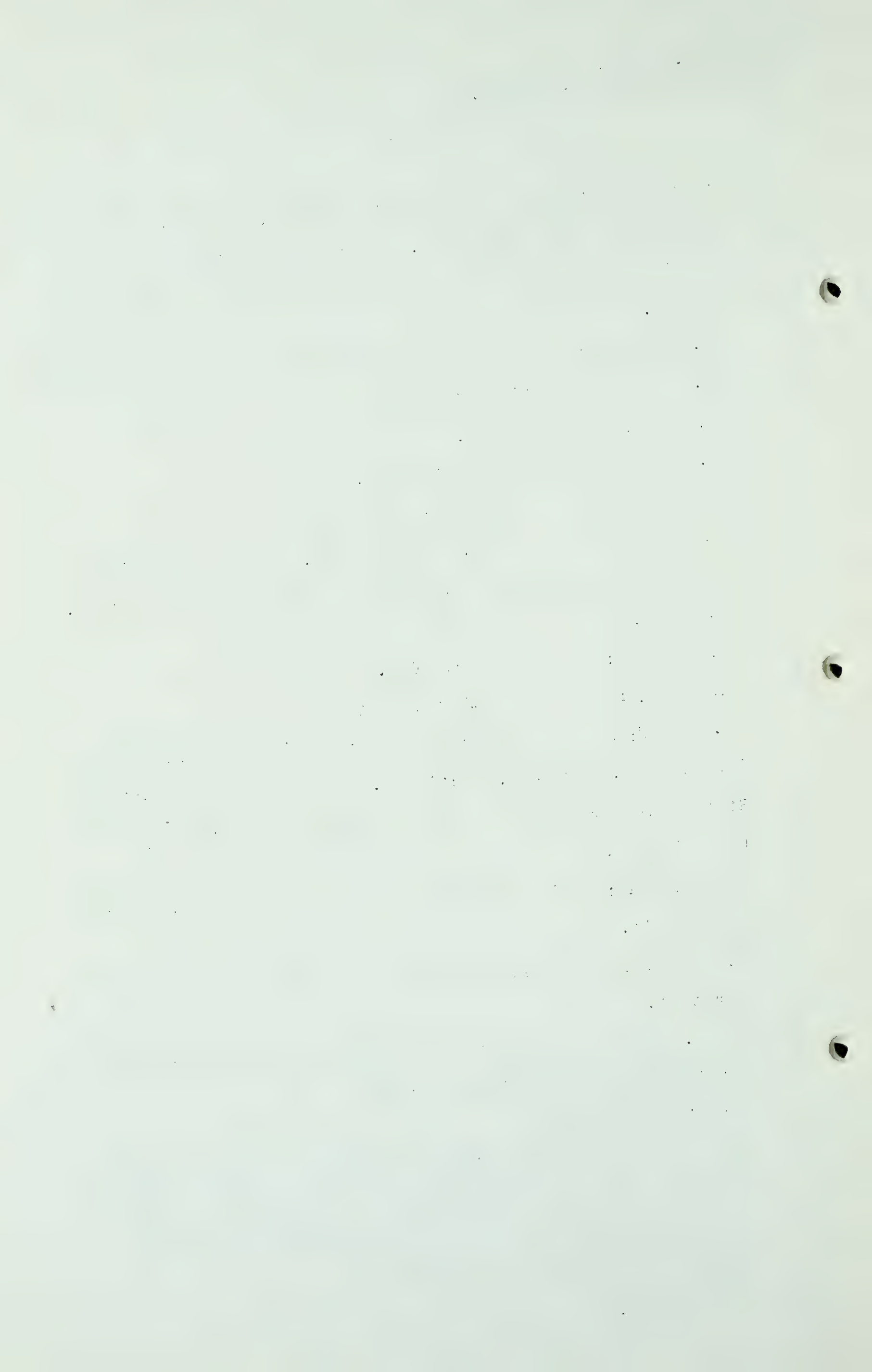
MR. FENERTY: All right. I am sorry to be so long over that.

Q Now Mr. Davis I want to take a couple of minutes with you on this threadbare subject of coal.

A Fifty if you wish.

Q You had some discussion with Mr. Chambers about the impact that the price of coal might have on the prices of gas and my understanding is that you have not made any detailed study of coal prices in Alberta ?

A That is right.



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Q What is that ?

A I have not.

Q Or the efficiency for instance of some of those new equipment, down draft stokers and so on, so you have not the details ?

A No. I read some of these bulletins in which claims are made for the new stokers and new apparatus.

Q And am I right in this that when you stated the price of coal you thought was of no concern in determining the price of gas, it was on the basis where coal is not competitive ?

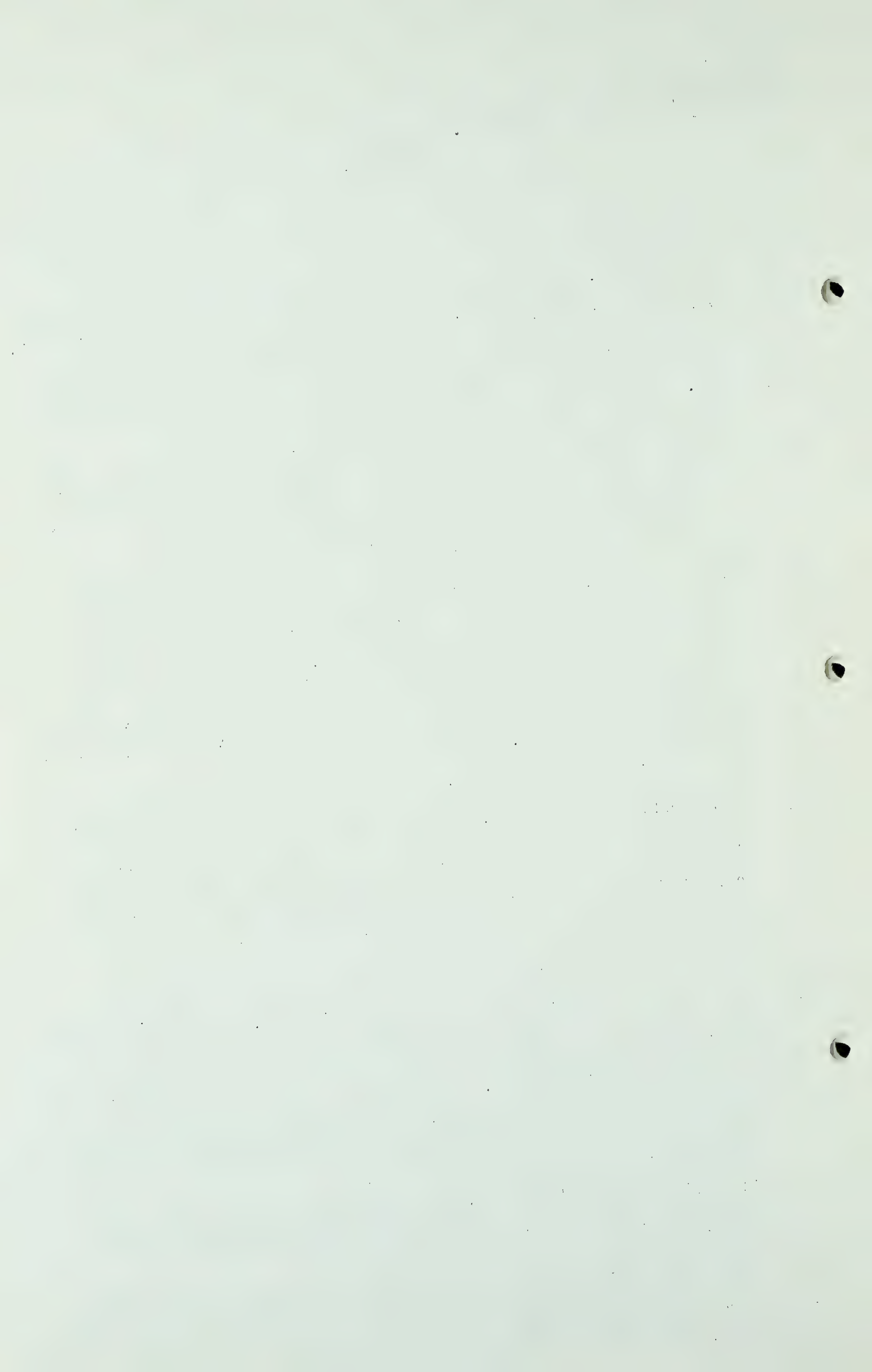
A That is true. I am assuming and I believe I am right that the situation is such that any change in the price of gas which this Board can conceivably make, would not be enough to make any material difference in the demand for gas, any material difference, and yet I recognize it might in the case of some industrial plants.

Q But would you say this, that if at any time in the now or in the future or at any stage, coal was competitive or became competitive in price, then if you want to maintain your gas market that price would be the ceiling that that gas could go to, a competitive price of coal ?

A I do not know anything about those ceilings. I live in a place where the ceiling would preclude me from using natural gas but I use it anyway. I would rather have the convenience than by living under a ceiling and a lot of other people are like that. I like to turn on the gas in September and forget it until the first of May.

Q But there is no use in putting up the price when you cannot sell your gas. You have told us that ?

A Yes, but because someone has a piece of pencil and a theory and cannot figure out a ceiling for any but a few people. well



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they figure it out for themselves anyway. Just a minute, you raise the price of gas a cent, a few people will tighten up and not use so much gas.

Q That is what I say.

A It does not amount to much, that is not a ceiling for the rest of them.

THE CHAIRMAN: And how long do they keep it up ?

A I am not very- well they forget about it after a while.

Q MR. FENERTY: Is this a fair proposition, that if you have a limited market, a certain market beyond which you cannot sell gas at the moment, you have got to keep that market as far as possible in order to keep the price of gas within a reasonable price ?

A You have got to maintain your gas sales in order to prevent increase in unit cost. If you are selling ten billion feet a year and you drop down to nine billion, unless you have been able to pare down your operating expenses ten percent, you are not making the money that you were making and you might get to the place where you might ask for a raise in price.

Q And that would have a bearing on cost ?

A It could do so.

Q As I understand your new position with reference to the price of gas is this, that you are assuming that in some uses such as household uses, we will say that coal is not competitive with gas at this time and that as a result of your experience what is done in other jurisdictions, how it works out and so on, that whether coal is not competitive, that would not justify jacking up the price of gas to a higher figure merely because coal was not competitive ?

A I think that is fundamental. Coal is not competitive with gas

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in Texas. We have heard enough about Texas, but coal is not competitive and frankly I do not know of any fuel that is, even fuel oil which used to be competitive, is no longer competitive, at least generally it is not.

Q A couple more things and I will be done. You did refer to gas cap gas in your opinion . being worth something more than oil well gas ?

A Yes, I did.

Q Now how would you work that out if the Board for instance came to the conclusion there should be variations in price in order to arrive at the two cents. How would you do, you would average it would you ?

A Well I suggested in my judgment two cents at the well head was a fair average price. Then I said in my judgment generally speaking and not going to every individual well, but generally speaking the gas cap gas is worth more money at the well head than is the oil field gas and for reasons that are self evident. Right now you are asking me how I would go about finding out how much. You do not want me to perform that duty here. Tell how much difference in price I think it ought to be.

Q No. No, I would not do that. I am just asking you would you say even with that in mind if you arrive at prices which would average two cents you were accomplishing a fair result ?

A In my judgment from what I see and know ^{about} an average of two cents I think would be pretty reasonable.

Q Now this is the last. I suggest that where you have a limited market and irrespective of charges charged, the history of the gas industry is that you will get so much money, the

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Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.

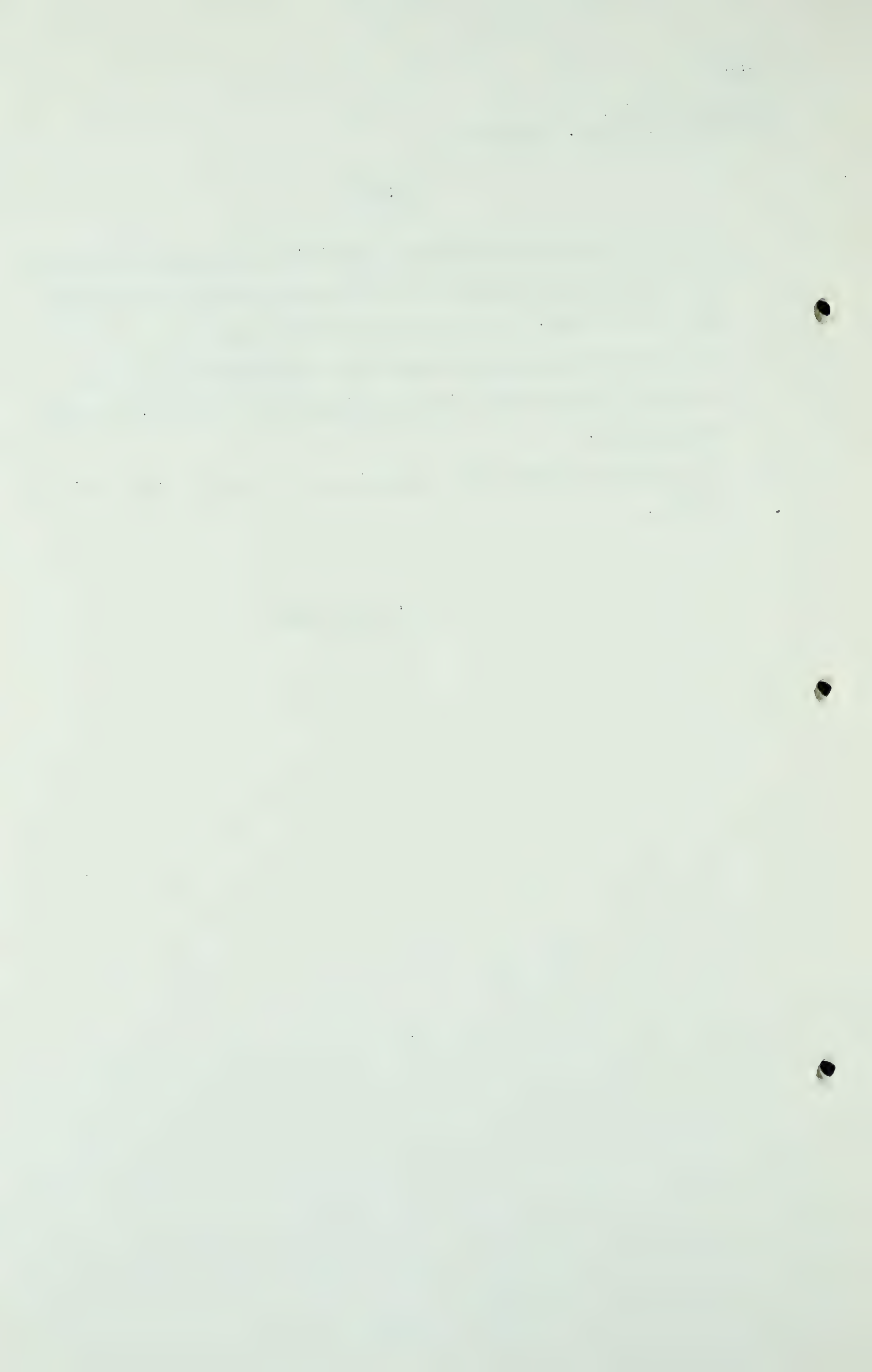
- 5598 -

Canadian Western Company can expect to get so much money out of this market which may not vary very greatly in the rise and fall of gas. Do you think that is sound ?

A Oh yes, statistics prove that to be essentially true and assuming equally cold winters, winter after winter, the same temperature.

Q I am trying to hurry through this and I will be only a minute or two.

(Go to Page 5599)



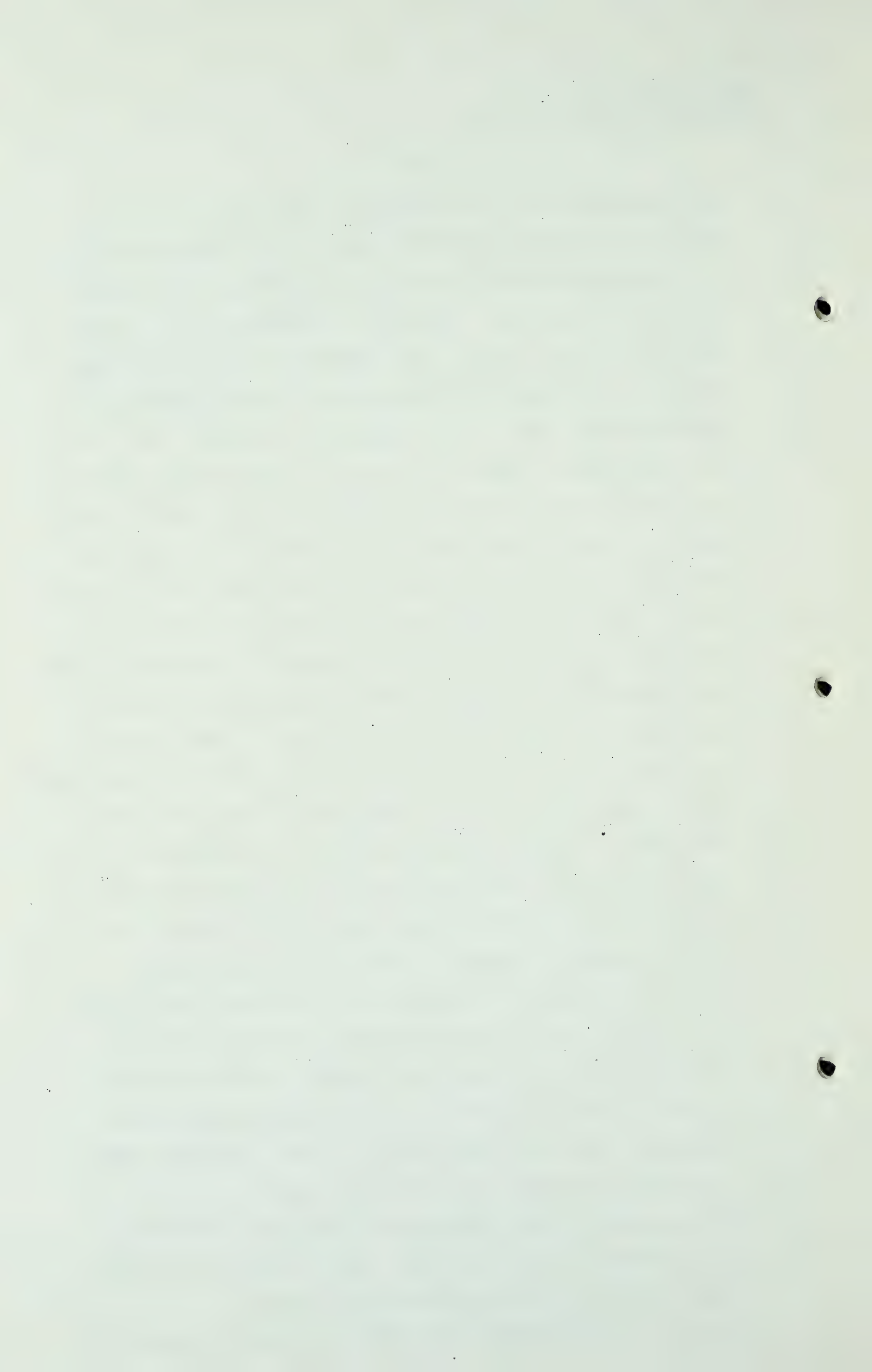
Ralph E. Davis,
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At page 5459 of your evidence you referred to what was done in Birmingham, Alabama. "And only for the reason that the circumstances are such it is an impracticable thing to consider in my view. I have in my studies, as to taking natural gas to a place, given studies for people who want to take natural gas from the Monroe field and Birmingham, Alabama where the fundamental question involved was, will the gas command a price sufficient to justify the pipeline and who is going to say what the price will be in Birmingham. It was the coal man. It was the coal at Birmingham we were looking at right then before we ever built a pipeline. Now it is only gas we are dealing with here with a situation where gas at 27 or 30 cents is not going to have any competition from coal in the domestic market that I make the statement on page 5." Now what I want to get at is this, let us take this that you have a limited market and with a raise in the price of gas some of the users might drop off. I suggest to you that in this situation you might not get very much more money out of that market by reason of an increase in price. Now I say if you have got that limited market, I suggest to you that the way you are going to find what is available for waste gas from an oil well at all events is to start with the amount of money available, find out your fixed charges, scrubbing and so on and distribution and so on and find out what is left over and above the actual operating cost. Have you ever considered approaching it from that angle?

A Do you mean to find what the well head price should be by starting out with how much money I have at the point where the gas is delivered from the field?

Q How much money you will get from what possible sales you



Ralph E. Davis,
Cross-Exam. by Mr. Fenerty.
Cross-Exam. by Mr. Harvie.

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can make.

A I do not think I have done what you suggest. There are only 365 days in my year, Mr. Fenerty, and I do not have time to do everything.

.....

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. HARVIE.

Q Mr. Davis, I believe you said earlier in your testimony that a 15 year reserve in a gas field for any particular market might be sufficiently long to make a sound utility set-up?

A It would be plenty long for some and it would be insufficient for others, Mr. Harvie.

Q I think you also said that as far as the Kinsella field was concerned, you looked upon it as having proven reserves at the present time sufficient to supply all the cities in Alberta, or all the Alberta market for a period of 30 years?

A I made the statement, right or wrong I made it,

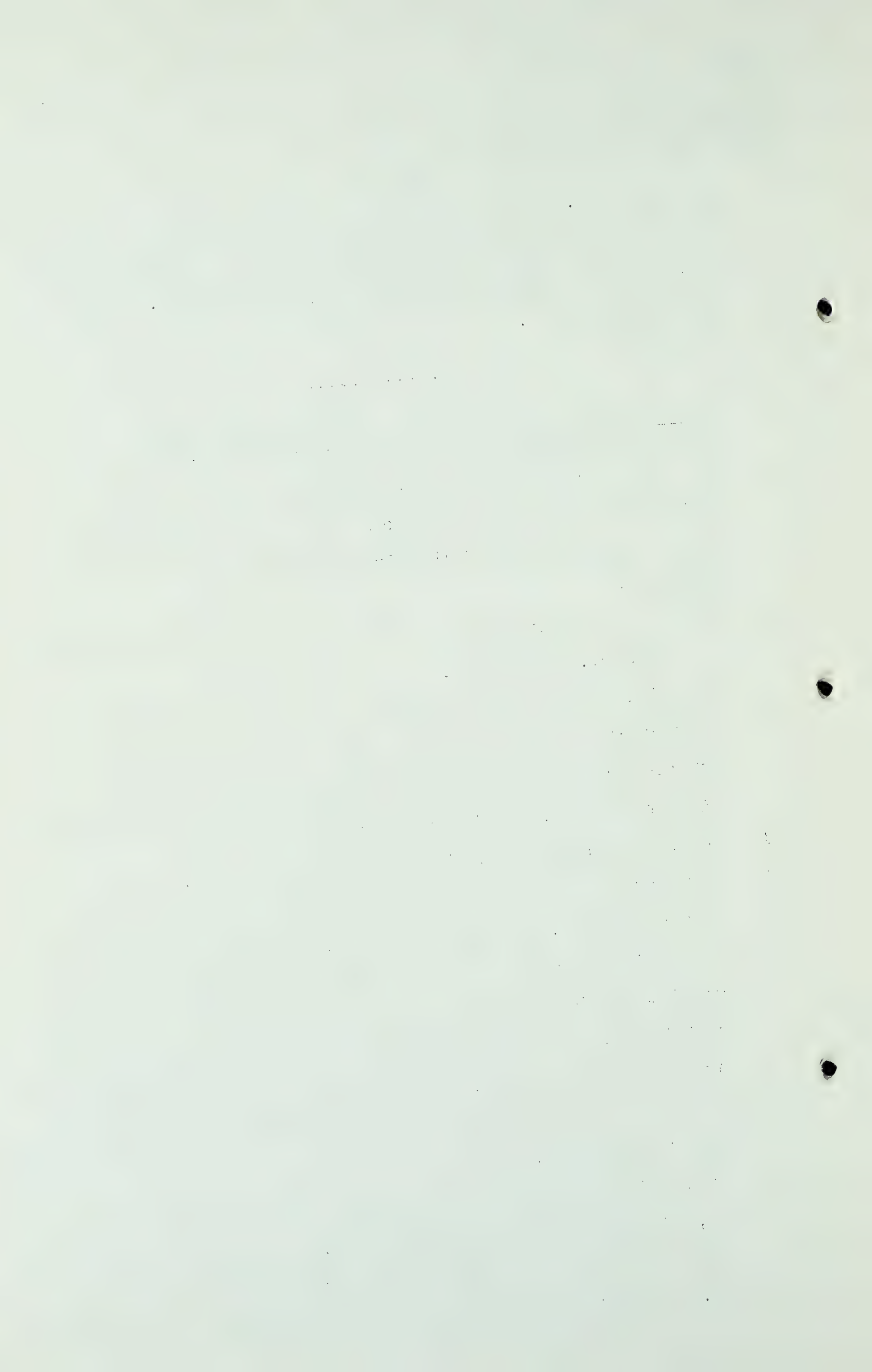
Q I am going to ask you to assume that the Kinsella field is a virgin field, has never been drawn upon or tied into. Also I am going to ask you to assume that some person, that you owned that field outright and some person comes and suggests that they would like to buy that gas at 6¢ at the well head for the Alberta market, which according to those figures would mean that it would take you 30 years to get your money out of that field.

A You say it would take me 30 years to get it out?

Q Yes, if there was a 30 years' supply?

A You mean I would be getting money for 30 years.

Q Yes. Just assume with me that on that basis you would be



Ralph E. Davix,
Cross-Exam. by Mr. Harvie.

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agreeable to accept 6¢ a thousand. Then before you closed these negotiations some person from Saskatchewan came along and put up a similar proposition to you, that he would be prepared to go ahead and take an equivalent amount of gas for use in Saskatchewan at 6¢ a thousand; which would mean a reserve for both fields for 15 years?

A Assuming that they take an equal quantity you mean.

Q Yes, I ask you to assume that?

A All right.

Q Which deal would you prefer as owner of the gas and producer of the gas, to be tied up entirely to the Alberta market for 30 years or to the two markets and sell just the same amount of gas in 15 years?

A Well the same amount of gas at the same price; in one case sell it all in 15 years and in the other case sell it all in 30 years.

Q Yes?

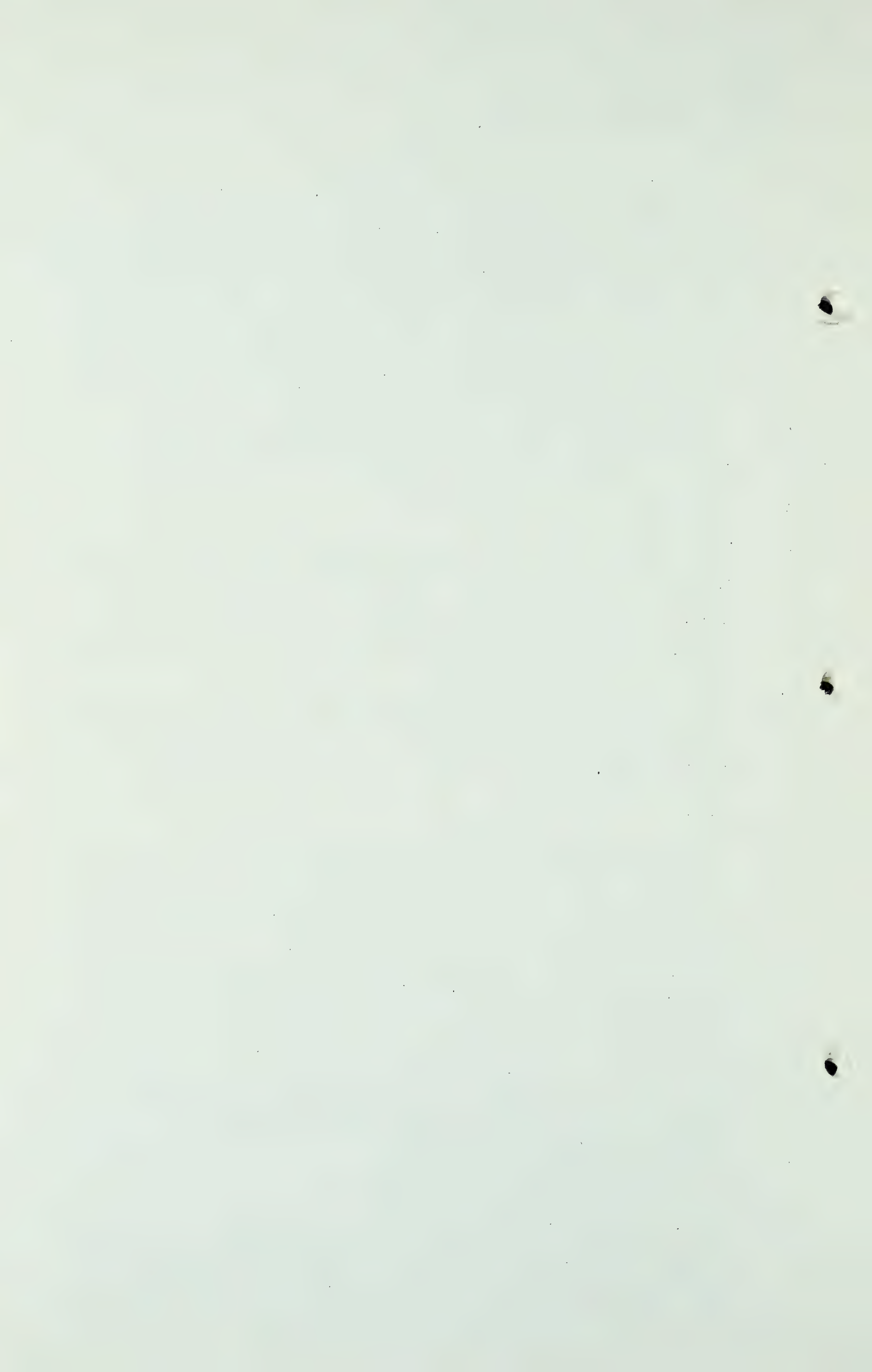
A You would be surprised to hear that the answer there could logically be either yes or no, that I would prefer one or the other depending on my circumstances.

Q You are prepared to just say that there might be circumstances that would induce you to prefer either one over the other?

A That would be true, not me the individual but you are assuming that I might be anyone other than myself. A corporation owning that property.

Q Yes, I will assume that with you?

A Yes, all right. Well I have known corporations to refuse to make a deal to sell some gas, refuse to sell gas profitably though the sale would be, because they are already in



Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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the 95% bracket and they would be selling gas for 5¢ and saving 3/10ths of a cent out of 5¢ worth of gas. So some people would prefer a long-term pay-off. Others might prefer a short-term pay-off.

Q In other words, taxation has a material effect on your judgment as to which deal you would like?

A It might have.

Q Taking Alberta, the company that wants to supply gas in Alberta, do you think it would be, if they were up against the competition of the two markets, do I gather from what you have told Mr. McDonald that possibly you would recommend to them to pay more than 6¢ if they could tie up the whole reserve for 30 years?

A Well you have got me into this 6¢ figure without me knowing why.

Q I have asked you to assume that is a figure?

A Yes. And now you ask me if I would recommend they pay more than 6¢.

Q Yes?

A I did not even recommend that they start out by paying 6¢.

Q You did on my assumption. I asked you if that was a fair figure at that time, if you would adopt it?

A I did not know that you expected me to consider it a fair figure. I thought it was an assumed figure.

Q Well I say now at any rate?

A You ask me to consider that 6¢ was a fair figure?

Q Yes?

A That I would be satisfied with 6¢ on a 15-year basis and now what would I pay if I could have it for 30 years.

Q As the purchaser of the gas?

Ralph T. Davis,
Cross-Exam. by Mr. Harvie.

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A Yes, as the purchaser of the gas. Well without any question, Mr. Harvie, I would agree to a higher price.

Q Is there any recognized method of valuing that additional price?

A Not beyond 15 years that I know of. Well I said not beyond 15. Some of these contracts do run for 25 and 30 years and specify a price for the first 15 years and then state that after 15 years the price shall be determined by mutual negotiation and failing to reach an agreement shall be left to arbitration. That is to say business men recognize the great difficulty in trying to state prices for so long a time as 15 years. Yet they also recognize unless they can state a figure for about 15 years they cannot build a pipeline. So there is a certain amount of necessity for going far into the future with price fixing. And there is also the difficulty of not going any further than that if you can avoid it. I do think of one instance where the price is fixed for 30 years, that is the Michigan and Wisconsin where the price is fixed for the first 5 years, for the second 5 years, then for the following 10 years and then for the next following 10 years.

Q Each at an increased price?

A In each case, the last two increases being $\frac{1}{4}$ of a cent per M.c.f.

Q Yes?

A Now that was just a deal arrived at between those two parties negotiating.

Q They agreed on that?

A They did agree on that. In the other case of the Tennessee Gas you will recall the agreement was 5¢ for 5 years, 6¢ for

Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

- 5604 -

the next 5 years and 7¢ for the next 5 and beyond that - I did not state it in my more formal testimony - but beyond 15 years they say that the price is to be subject to negotiation and if necessary arbitration.

Q But generally speaking you think it is sound to pay more for the longer period that you can get the supply of gas contracted for?

A Yes, always.

Q This morning I think you said, Mr. Davis, that the customer in using we will call it raw gas or with the wet gasoline content in it would lose possibly 10% of the heating value of the gas?

A Generally speaking

MR. STEER: Did Mr. Davis say that? I did not hear him say that.

A I said that gas stripped of its gasoline would be from 5 to 10 per cent less value based on B.T.U. That is the statement he referred to.

Q MR. HARVIE: I do not remember the 5 or 10 per cent?

A I said of that order. I said somewhere 10% or at least 5%.

Q Now just let us assume that the stripped gas is 1000 B.T.U. and the unstripped gas 1100?

A All right.

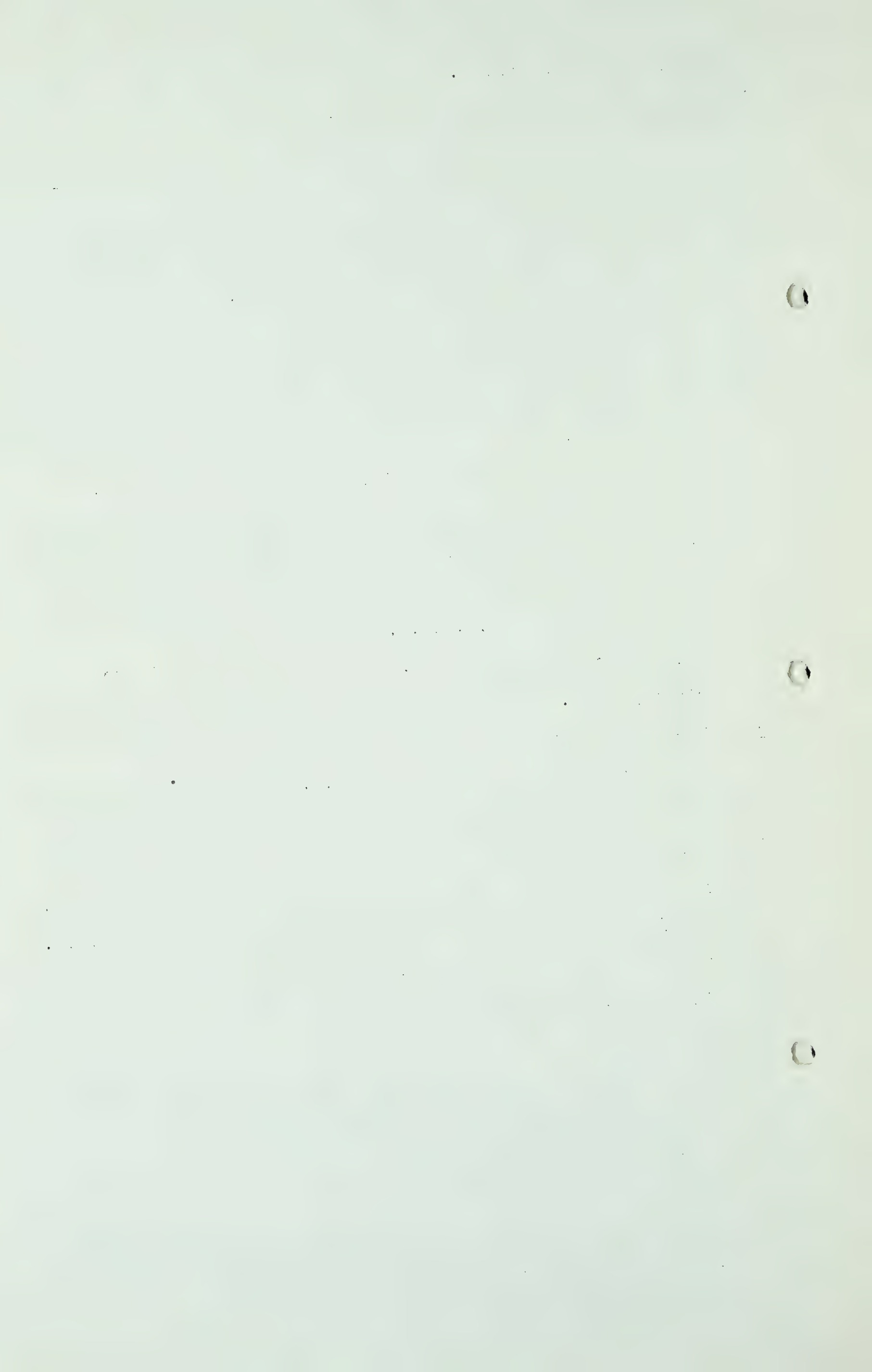
Q The ordinary domestic consumer, does he actually benefit to the full extent of the 10% additional?

A The domestic consumer?

Q Yes.

A Well I do not believe he benefits to the extent of 10% but out of that 10% he benefits to some extent.

Q Any idea how much?



Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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A I would think probably at least half. If he uses the gas, Mr. Harvie, in an efficient unit for house heating, I think he would benefit almost all of the 10%. Whereas if he uses gas for cooking meals I do not think he would benefit by more than half of the additional heat unit.

Q So that generally speaking the contrivance in which you consume the gas and the larger quantity the more efficient?

A Generally speaking that is so.

Q I think also you said this morning that you considered you would be prepared to recommend to the Gas Company that it would be in order for them to handle unstripped gas?

MR. CHAMBERS: Unscrubbed?

MR. HARVIE: No, unstripped.

A I stated that to my knowledge unstripped gas has been handled by gas companies. Some still do it. Many of them have done it in the past and all of them having done it prior to 1913.

Q So that in this case you think that could be done?

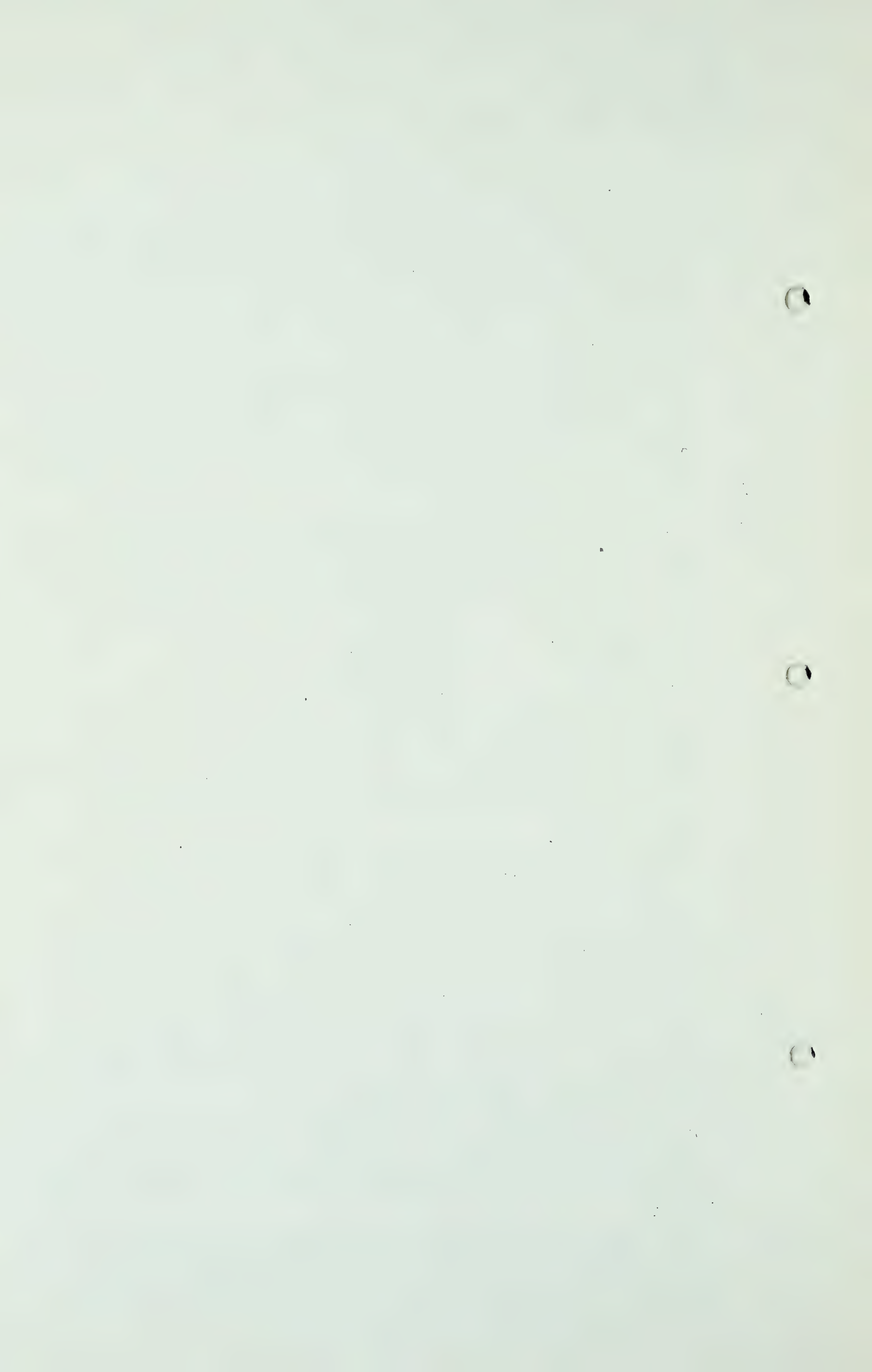
A I think that could be done here.

Q Would you say the same about scrubbing or do you think it needs to be scrubbed, Turner Valley Gas?

A Well I presume you fellows in Calgary would note the difference. If you did not note the difference, I surely would not raise a question about it.

Q You do not think there is any reason for the regulation prohibiting the burning of gas with a large sulphur content in it?

A I do not think they need any regulation by anybody not to buy gas with that sulphur in it. It would just stink you out of your house.



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Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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Q It is being done?

A What is being done?

Q Raw gas being sold in homes?

A Not if it contains much sulphur.

Q It contains all the sulphur that is in it in Turner Valley?

A Well it is not a very sanitary way of burning gas.

Q In other words you would recommend to have it scrubbed?

A For a city, why certainly.

Q Is there any material difference in the cost of scrubbing
unstripped gas over stripped gas?

A I would think not.

Q You do not know. Have you ever done it?

A I do not know that but I do not think it would matter at all.

Q We have been discussing from time to time the so-called
exclusive gas contract between the Gas Company and the
Royalite, which I think came into existence in 1921 in
the first instance and then in 1925. I think it is part
of Exhibit 69. You are familiar with the contract?

A Yes, sir.

Q And are you familiar with the price stipulation in that
contract which was a minimum of 13¢ for gas?

A At the beginning?

Q At the beginning?

A Yes.

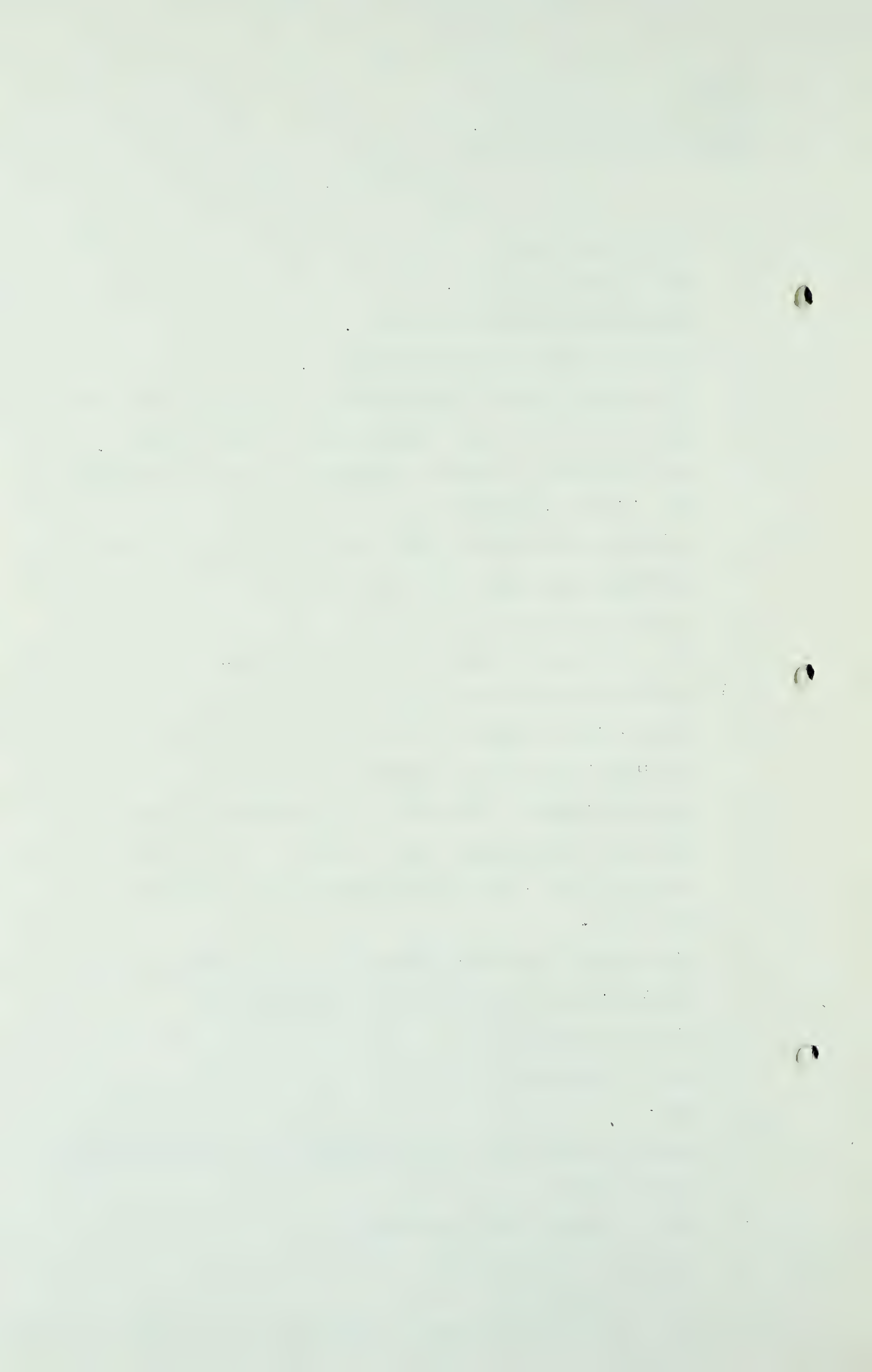
Q Do you know how many wells Royalite had in Turner Valley
at that time?

A One, I believe, one deep well.

Q Which one was that?

A Royalite Number 4.

Q No, I am talking of 1921. I think it was 1924 when Royalite 4



Ralph E. Davis,
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came in.

A Maybe I am not right. I was thinking of my own first contact with the company at which time they did have Royalite number 4, a deep well.

Q I think the evidence is, Mr. Davis, and I will ask you to assume it anyway, that Royalite Number 4 well came in in 1924 and was not in existence at the time of the 1921 contract?

A All right.

Q Do you know what wells were in existence at that time?

A No, I do not know.

Q Do you know if during the period of around 1921 whether the Gas Company had ample supplies of gas or were they suffering from want of gas?

A Well I had not been here prior to December 1924 - 25. I had not been here and I have not been informed as to whether or not they were actually short of gas.

Q When you came in December 1924 or the early part of 1925 was Royalite 4 tied into the system?

A Yes, sir.

Q It was a very large supply?

A It was a big well.

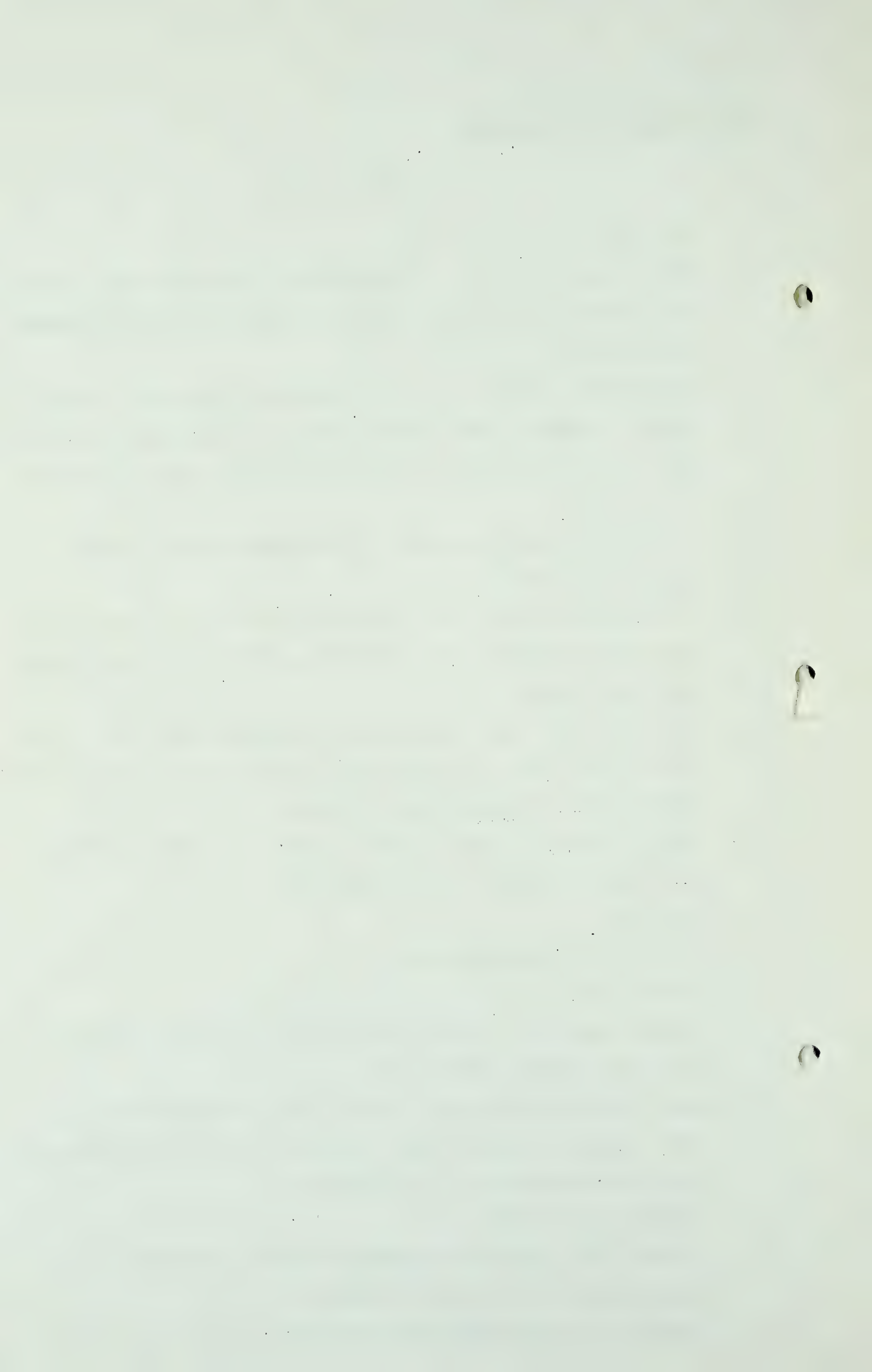
Q Do you think the 13¢ price offered under the 1921 contract was a good price, a big price?

A Well, had that price remained in effect down through the years all the time until now it would have been an extremely profitable contract for the Royalite.

Q It would have been?

A It would have been an extremely profitable contract for Royalite had they got 13¢ instead of

Q Provided they would have sold as much gas or do you think



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Ralph E. Davis,
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they could have if that price was in effect?

A No, I do not think they could have sold as much gas.

Q But you do think it would have been a profitable contract even at that price?

A I think any time you can get an extra 4¢ or 5¢ for gas over and above 8 or 9¢, I think you would be making a little more money.

Q I think you used the term that it might be an extremely profitable contract?

A That is what I think.

Q Don't you think maybe that was some incentive for drilling wells in Turner Valley for the Royalite?

A By Royalite?

Q What? Don't you think the effect of that 1921 contract making such an attractive price for all the gas that could be produced or that the Gas Company could sell, that is an exclusive contract both ways, would be an incentive to induce the Royalite to drill more gas wells?

A Oh well, in our circumstances other than those of cost you might think so. When you see a big well giving an amount of gas at 13¢ and with a well capable of delivering all that gas

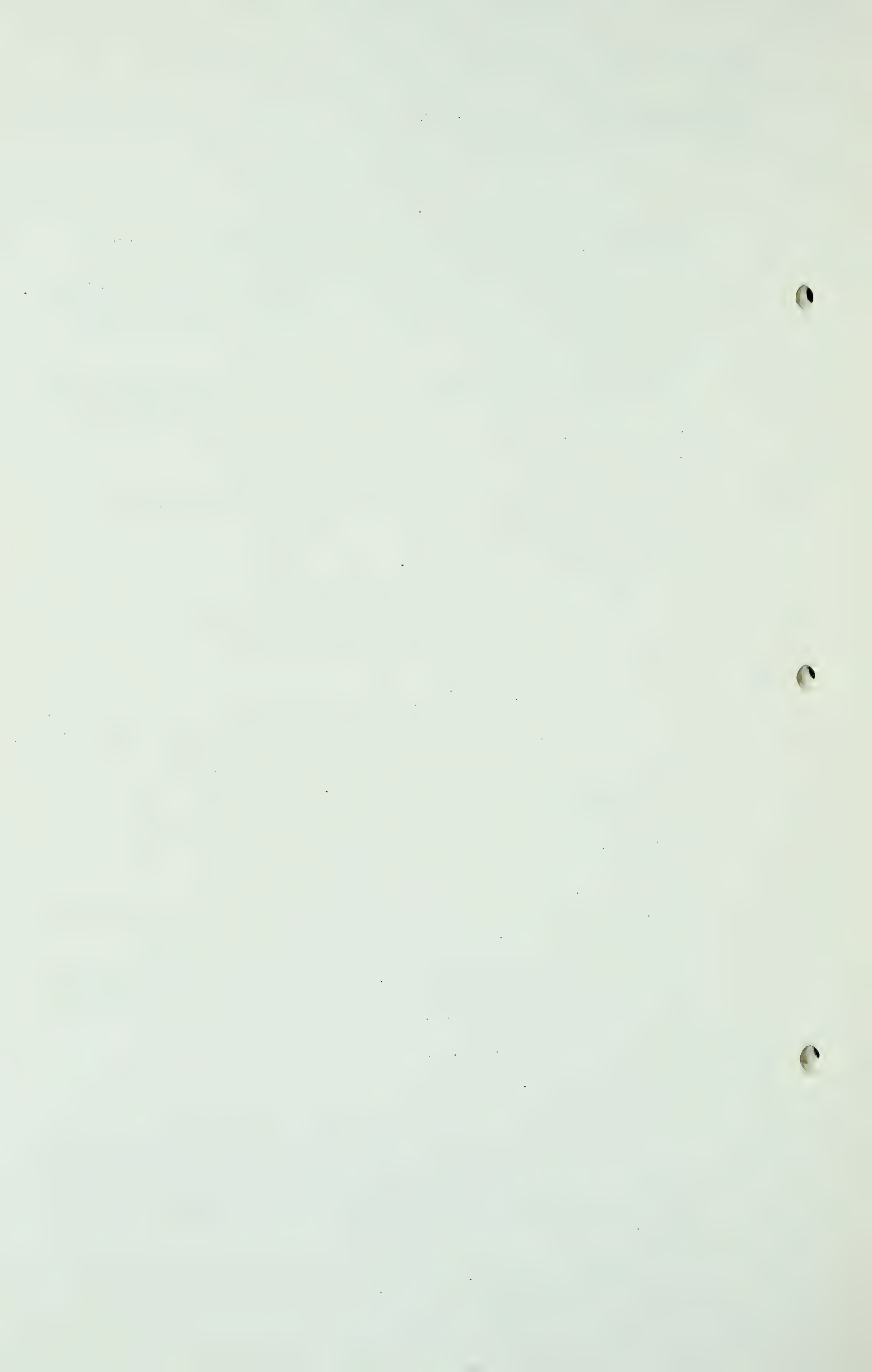
Q I ask you to

A Say yes or no.

Q No, not to assume anything other than what I asked you to assume. I have asked you to assume if you do not know it that Royalite Number 4 well only came into production in 1924?

A Oh, I see. In 1924.

Q Yes?



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Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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A Yes.

Q We are talking about the 13¢ price established under the 1921 contract?

A All right.

Q Have you any knowledge as to whether the Gas Company were suffering from lack of reserves of gas at the time of entry into the 1921 contract?

A I think that their supply of gas was becoming rather limited.

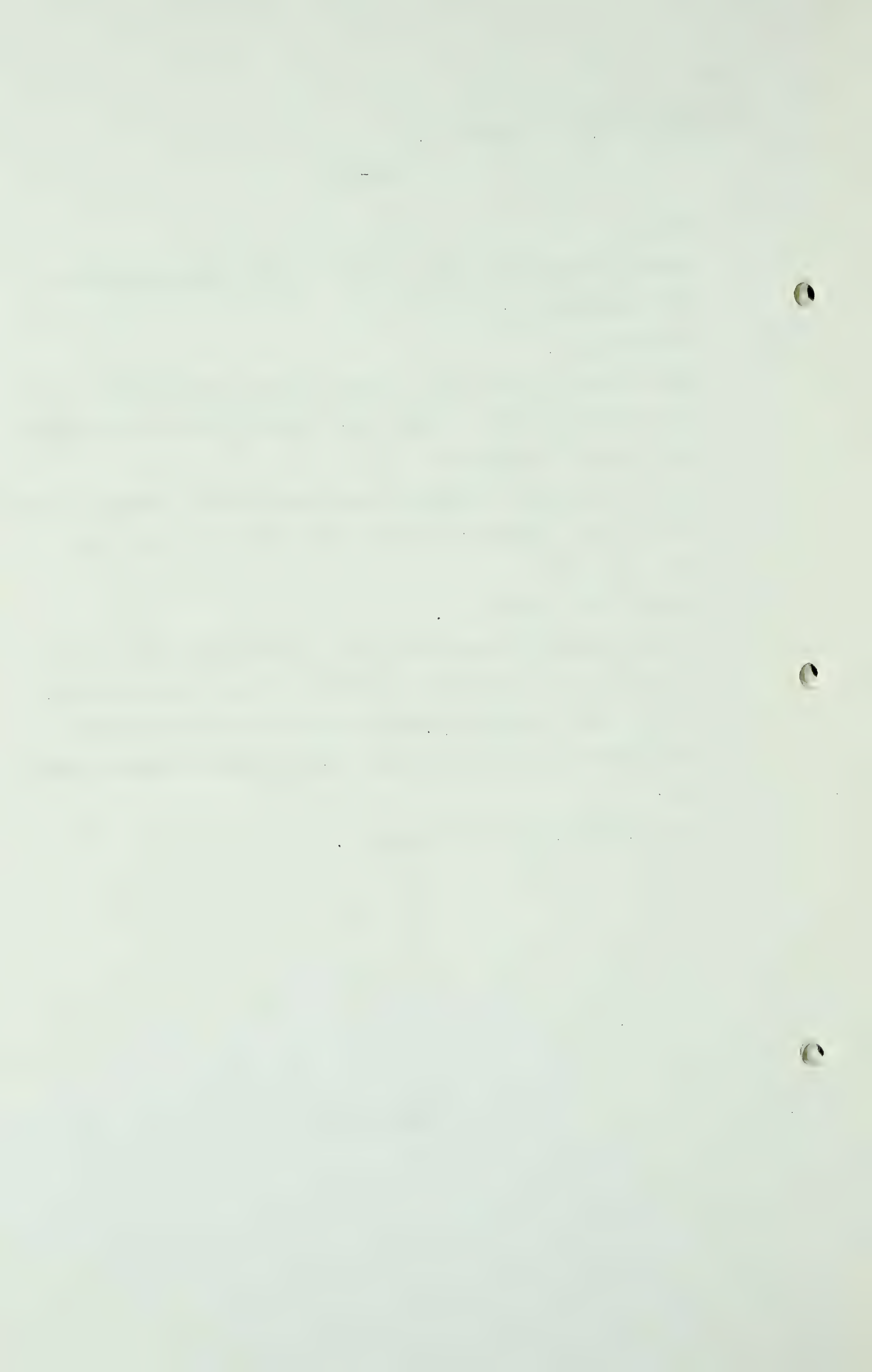
Q Do you think possibly that was one reason that the high price was set?

A I think very likely.

Q Will you agree with me that being the case that would be at least some incentive to Royalite to drill more wells for gas in Turner Valley, bearing in mind that there was no production at that time or very little before Number 4 came in?

A I can agree with you on that.

(Go to page 5610)



Ralph E. Davis,
Cross-Exam. by Mr. Harvie. - 5610 -

Q Or it might be that some of the earlier wells were drilled for gas rather than for oil?

A Prior to 1924.

Q Yes?

A That might well be.

Q Now referring to Exhibit 148, relative to the conservation and value of gas, page 12 of Exhibit 148, the second last paragraph, you state:

" In any case, if we are to follow a principle that he who enjoys the benefit should pay for putting gas back into the ground, it is difficult to be positive that any part of that benefit will accrue to the consumers of the Canadian Western Natural Gas Company system."

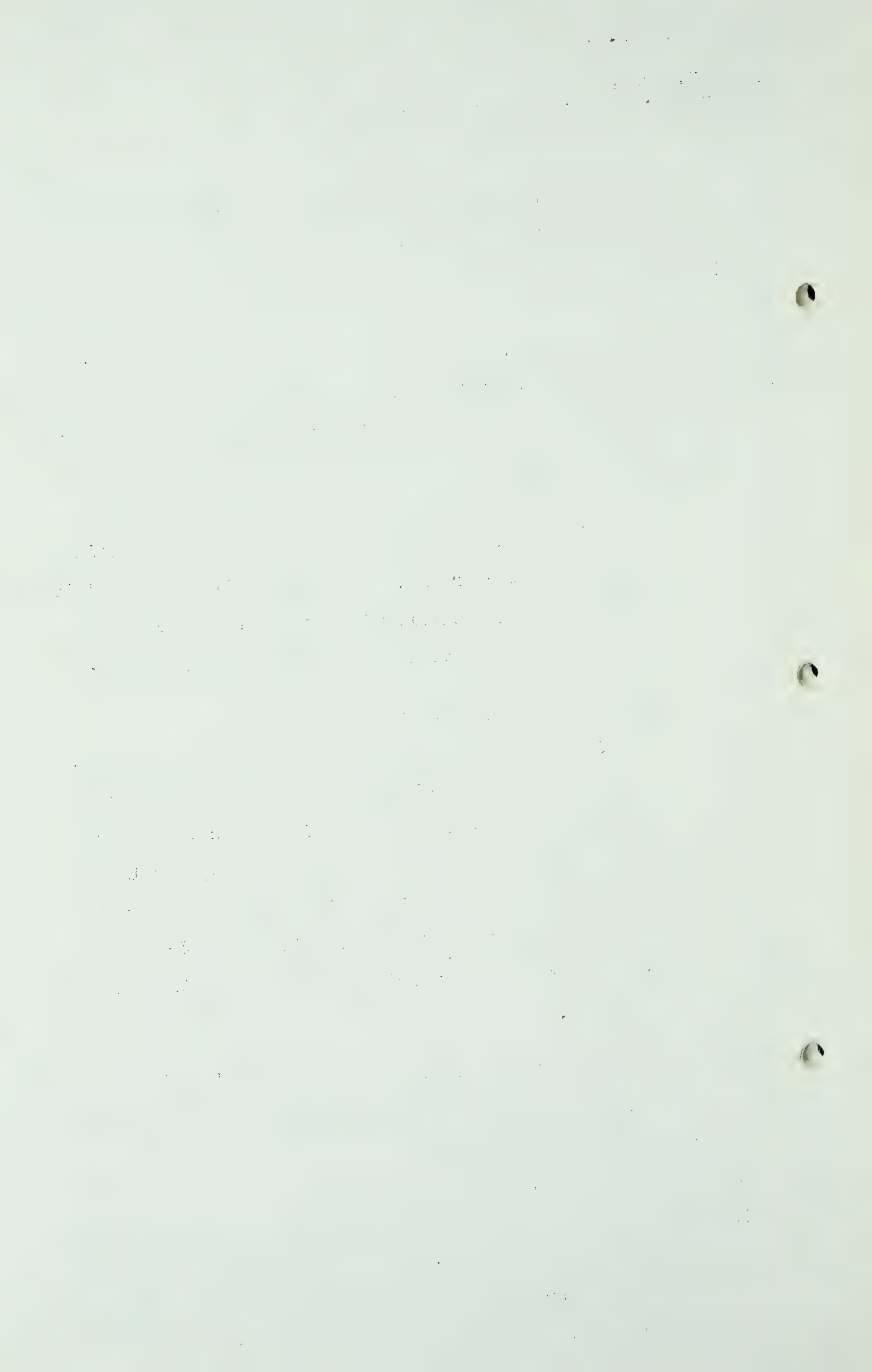
Then on Page 13 you say:

" So far as the low pressure system is concerned, I have examined the evidence and the evidence of the officials of the Company and it indicates the effect of the installation of the low pressure system is to extend the life of the absorption plant by at least 7 years, giving it a life of $2\frac{1}{2}$ times the 3-year life which it could anticipate at the inception of the scheme."

Now when you say "the inception of the scheme", which scheme do you mean, the scheme of the installation of the absorption plant or the utility scheme?

A The utility scheme.

Q Mr. Davis, do you suggest that the inception of that part of the utility scheme, the low pressure system in the B.A. end of the field, increases the life $2\frac{1}{2}$ times, of the absorption plant operation?



Ralph E. Davis,
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- 5611 -

A That is my understanding.

Q So I gather from that, that you think that the B.A. benefitted on the over-all installation, $2\frac{1}{2}$ times what it otherwise would?

A Well, it is a matter possibly of arithmetic and some judgment, as to how great a benefit it will probably turn out to be. I was only pointing out that it would appear to be a very material benefit.

Q You think it might be?

A Yes.

Q Might it not be that the carrying on of the operation, instead of extending the throughput $2\frac{1}{2}$ times, actually under it that you would make less profits?

A Well I would doubt that.

Q It would be possible?

A You mean if they bear the cost of installing the low pressure themselves, if they bear that entire cost, then one might consider it possible that after putting that money up, even although they would get the larger throughput, because the gas might prove to be leaner, or possibly the market price of gasoline might decline, and they might end up with no more profits than they would have had had they made no such low pressure installation, is that what you are asking me?

Q Yes?

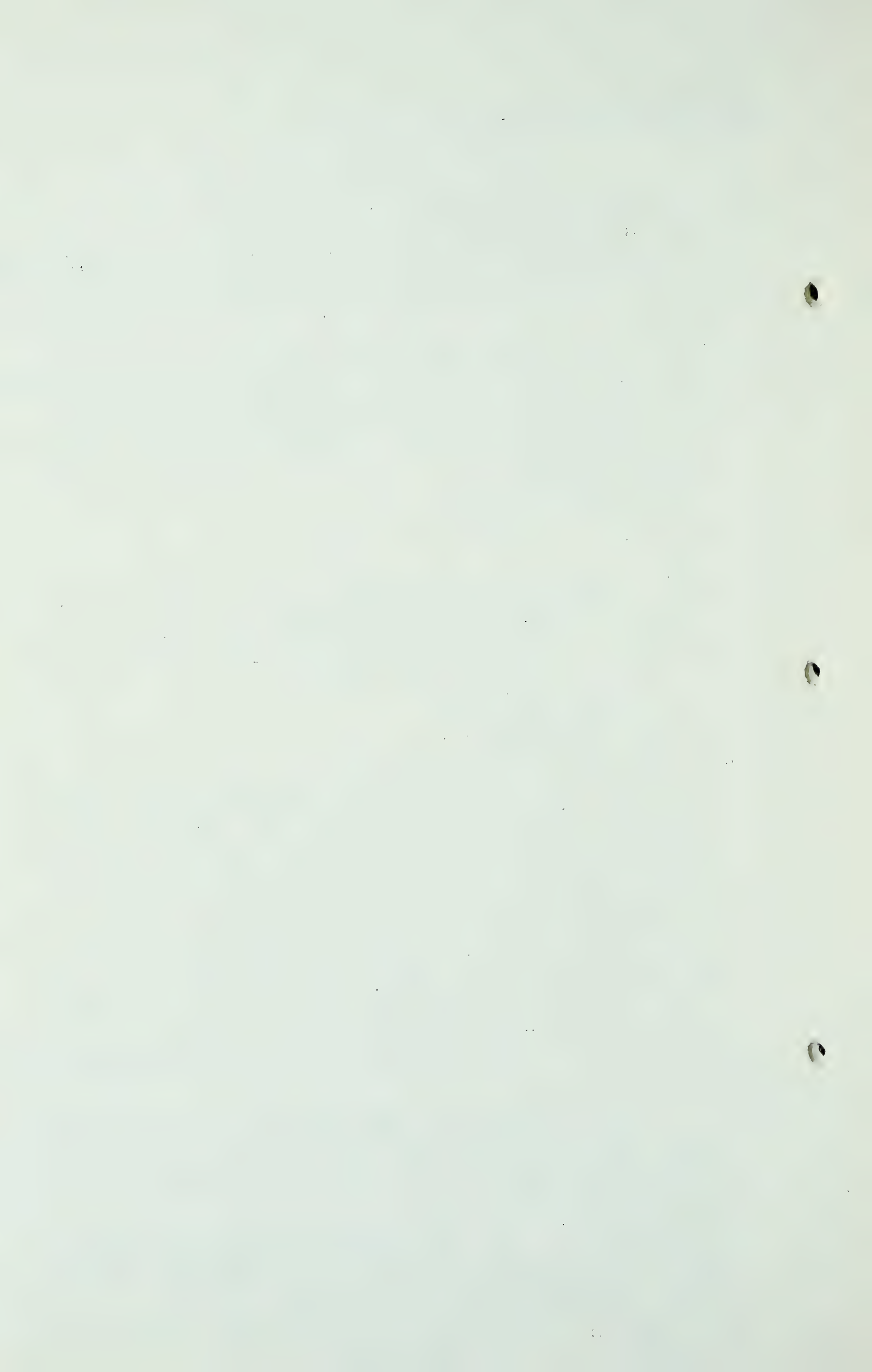
A Well I think it would be a possibility but I would not think it very probable, I would say this, if it is probable they should not build then.

THE CHAIRMAN:

The alternative suggestion of course would be that the B.A. put in the low pressure system so as to provide additional residue gas to Calgary, did they do that?

MR. HARVIE:

Excuse pardon?



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Cross-Examined by Mr. Harvie.

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THE CHAIRMAN: Did they put in the low pressure system in order that there should be more residue gas for the City of Calgary, because that is the alternative suggestion?

MR. HARVIE: That is one, but there is another one too. Were you asking the witness that question?

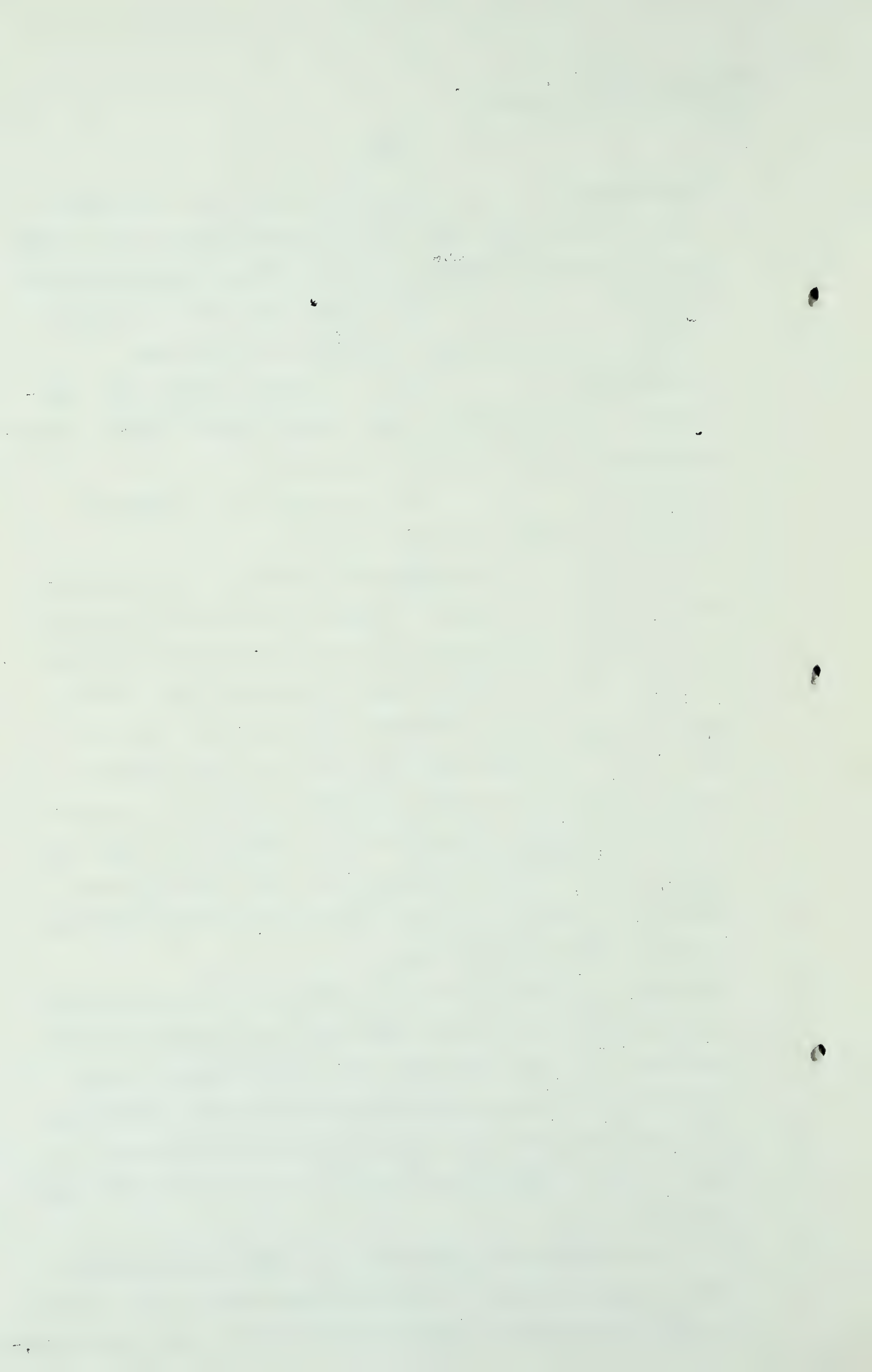
THE CHAIRMAN: No, I am merely making that suggestion to you, Mr. Harvie, and you say there is still another suggestion, so I am waiting to hear it.

Q MR. HARVIE: Will you answer the Chairman's question, his question to me?

A Well it is not to be assumed that they put the low pressure system in just to increase the reserves available to Calgary when it is in the evidence and it is in our minds generally that one of the benefits was in an increased life for the plant's operation, and increased earnings of it. Now to ask me to assume that they would not have any increased earnings or ask me to assume that they might even have less earnings, and then ask me if in that situation the plant was put in for the benefit of Calgary, you are putting me in a position of assuming something and then concluding something on an untenable presumption.

Q Now assume with me that the installation of the low pressure system neither made nor lost money for the absorption plant operation, it just broke even, say, might there not well have been justification for the installation, for installing it in order to give, - on behalf of the producers in the first place, to allow them to produce the gas and thereby get the oil?

A Well I am assuming that they would be permitted to produce their oil anyway under the Brown Plan and that the gas, except for what they use, that would be wasted for the gasoline content, -



Ralph E. Davis,
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under the low pressure system it brings their gas to your plant, and they have the benefit of 20% of the gross from the gasoline, that is one thing they get, and then they have the benefit of such a price for gas, such a price for their gas as the Board may fix, so in any case it seems to me the oil producer benefits from the installation of that low pressure system.

Q So it might have been well justified to have that installation put in by the utility company on behalf of the producers, either the producers or the consumers, even if the absorption plant made nothing?

A I would think "Yes". It may have been a benefit for the oil well producer to put it in, or probably do it like they have done down in the United States, the United States orders someone to put something in and they have to pay for it.

Q You say it might have been a sound proposition for the oil producer to put that in?

A I did not hear that question.

Q I say you say it might have been justified.....

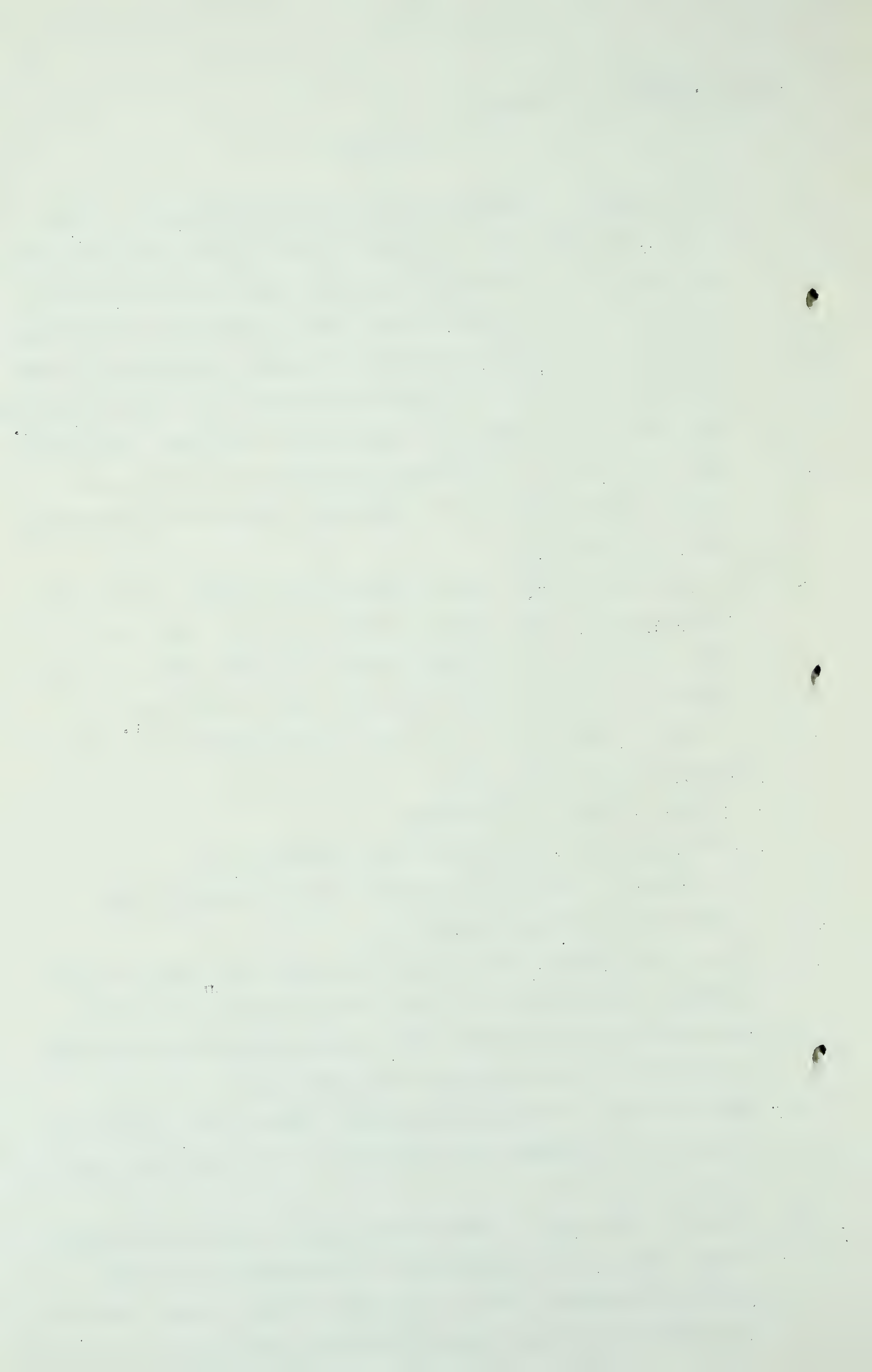
A To my mind it would have been the logical thing for them.

Q What do you mean by "logical"?

A I say the logical thing for them to assume that burden rather than for the utilities to assume that burden. They will be getting the benefit because they sell gasoline they otherwise would not have sold, and they sell some gas.

Q So it is just a matter of accounting, whether the utility puts it in and the producer pays him for it, or the producer puts it in?

A Well I do not know. There is the producer whose gas is going in the air, to get the gasoline, if he wants to have that gasoline recovered that is, and if he wants to sell that gas, he should be willing to pipe it to the place where he can sell



Ralph E. Davis,
Gross-Exam. by Mr. Harvie.

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it and if he has not enough to make that worth doing from his point of view, from whose point of view is it worth doing? If it is not worth while for that oil producer, if it is not worth putting in the little pipe line over to where he can sell it, where is the fellow who benefits to the point of putting it in?

Q That is what I am asking you.

A And I am telling you, I do not think anybody could afford to do it as well as the owner himself can do it, and I am not telling you that he can afford to do it. That is for somebody else to say.

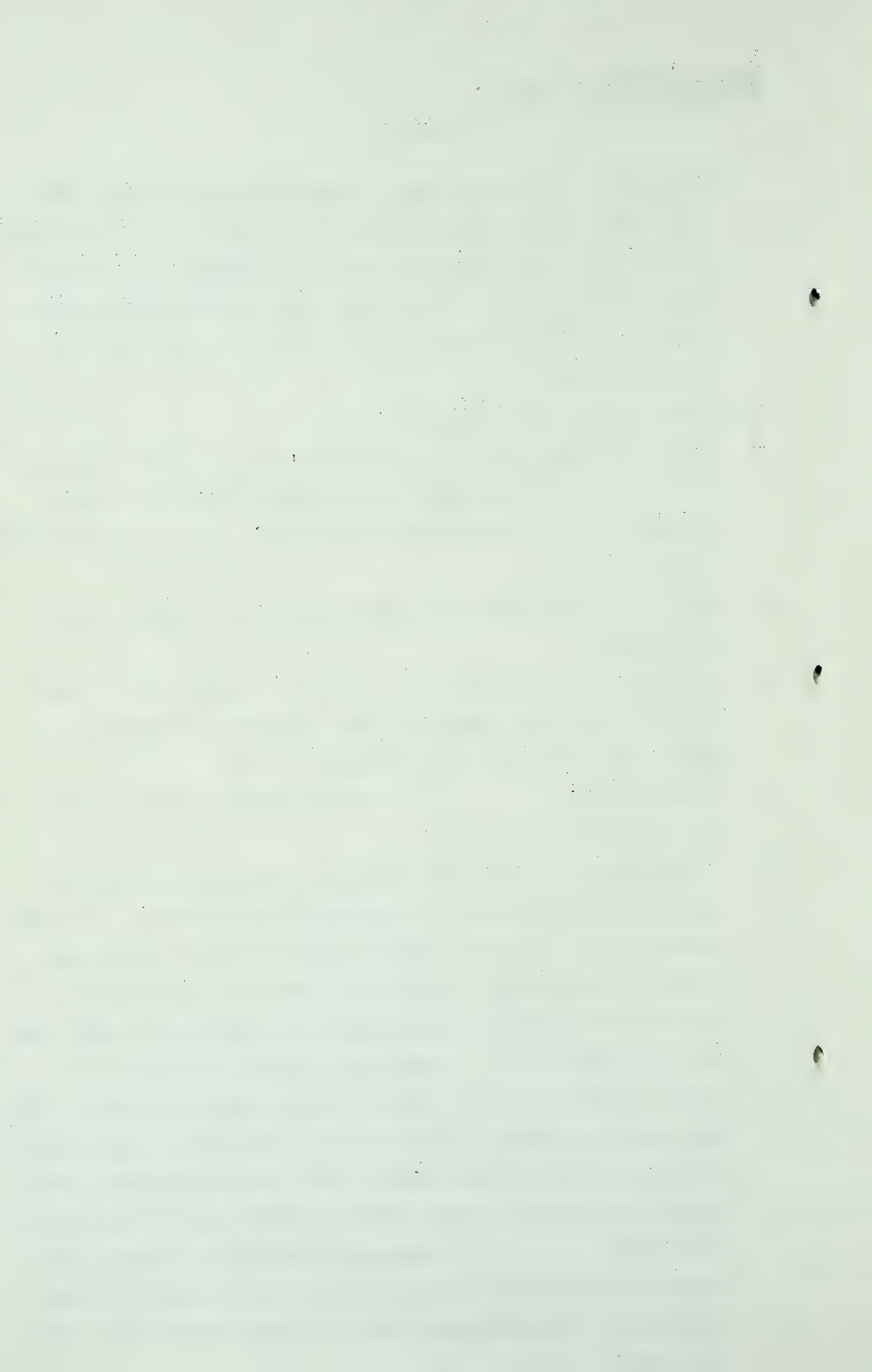
Q Do you think of the three possibilities, that might be the most logical?

A I think it would be the more logical to require the oil well owner to build that gathering line which gets his gas to a market, than ask some other fellow to do it.

Q THE CHAIRMAN: That would mean the oil line plus the compressing machinery?

A I am thinking of this gathering line that goes over to the gasoline plant where it is stripped of its gasoline. At that point the oil well owner has the right to take back the gas after it is stripped, right there, and if he could make a deal with a second or a third party at that point to build the line and attach it to a compressor system, that would be a pretty sensible thing for him to do or it might be better to try and put in a little line of his own, and that is about what he did do, it seems to me or a larger line through the Board Order rather than several little lines by individual small producers.

Q MR. HARVIE: Anyway you are very definite in your opinion that the Gas Company, representing the ultimate consumer in the Calgary market, should not be charged with any of that cost.



Ralph E. Davis,
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A I think under the circumstances and facts that prevail I think that the cost should not go to the people of Calgary and be collected from them by the Gas Company.

Q So that the only two people left would be either the absorption plant operation or the producer or a combination of those two ?

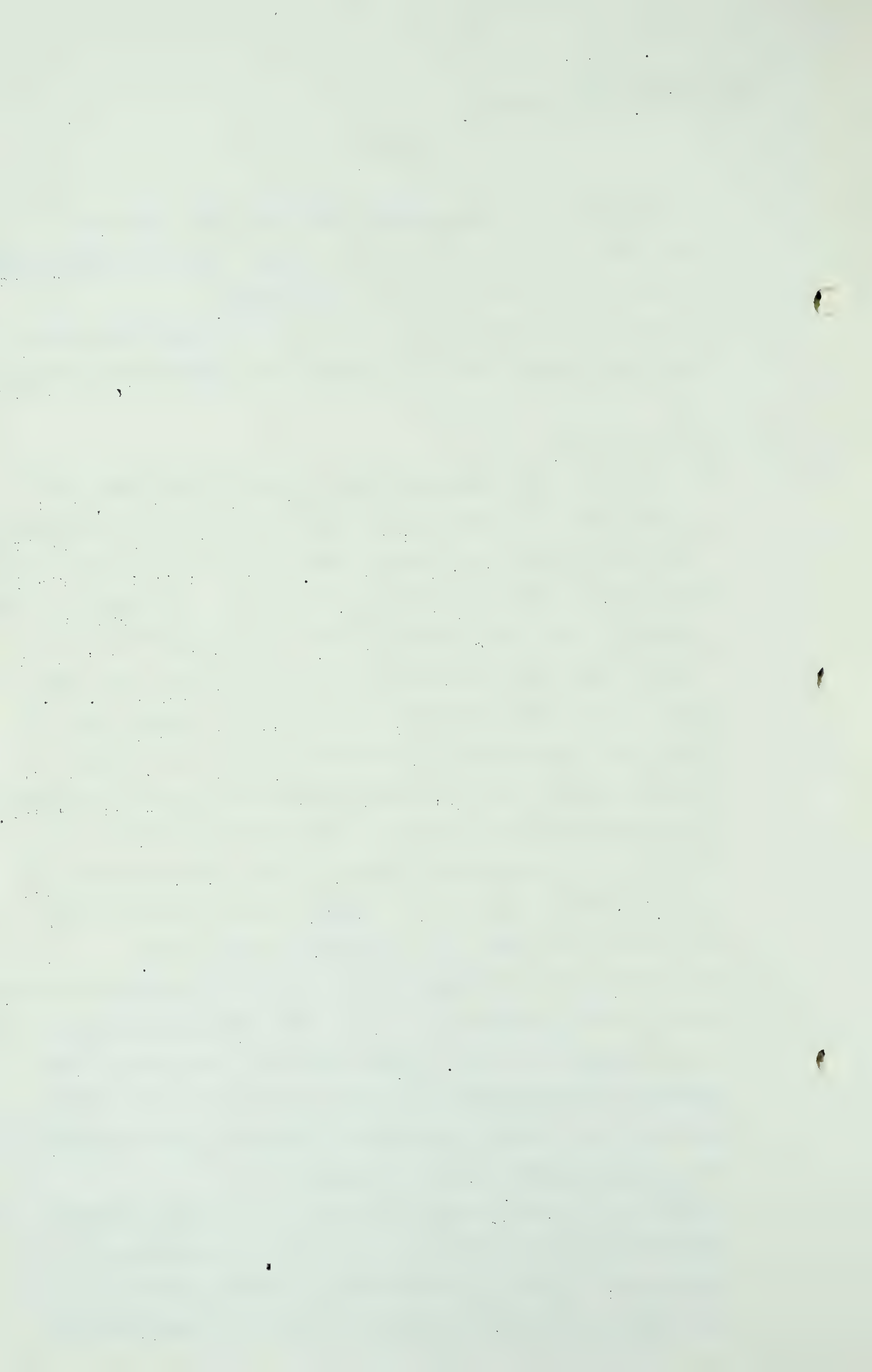
A That is right.

Q Now you say in the paragraph that I read to you first, that he who enjoys the benefit should pay and that is in conformity with what you have just told me now. But that it is difficult to be positive that any part of the benefit will accrue to the consumer of the Gas Company system, do you think that is so ?

A Well it seems that way to me and I had previously said, Mr. Harvie, and I would like now to bring it out again, where we have been talking that to the extent say that the consumers in Calgary benefit from this repressuring and conservation thing, I would not hesitate they should pay for that portion of the benefit. I do not see the benefit or where it is or how much it is. Whereas I can put my finger direct on some benefit to the oil well owner and the gasoline plant owner.

Q All right, put your finger on the benefit of the gasoline plant owner on the assumption that it is just exchanging dollars over that period, making neither more nor less money by increasing the throughput and operations of ten rather than three years. It is a question of dollars and cents whether he does make money by that operation ?

A If he is not going to make any money, if it be the judgment that he is not going to make any money by stepping up the operation it would be presumed that he would pay no share in the cost of doing this thing if that be the assumption and a



Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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proper conclusion if it be a proper conclusion.

Q That is something for this Board ?

A That is up to this Board.

Q So your suggestion is that as a result of investigation, this Board says the operation is a profitable one, you think that some portion of that charge should be charged to that operation. If they find it is not a profitable one you say that no part of that charge should be charged to the absorption plant ?

A I would think that would be about it.

THE CHAIRMAN: But Mr. Harvie, are you predicating your exchange of dollars on a free market for natural gasoline or a closed market as it exists at the present time ?

MR. HARVIE: I will argue that or put in evidence in due course but so far as this witness is concerned I am trying to find out how he would deal with this specific situation.

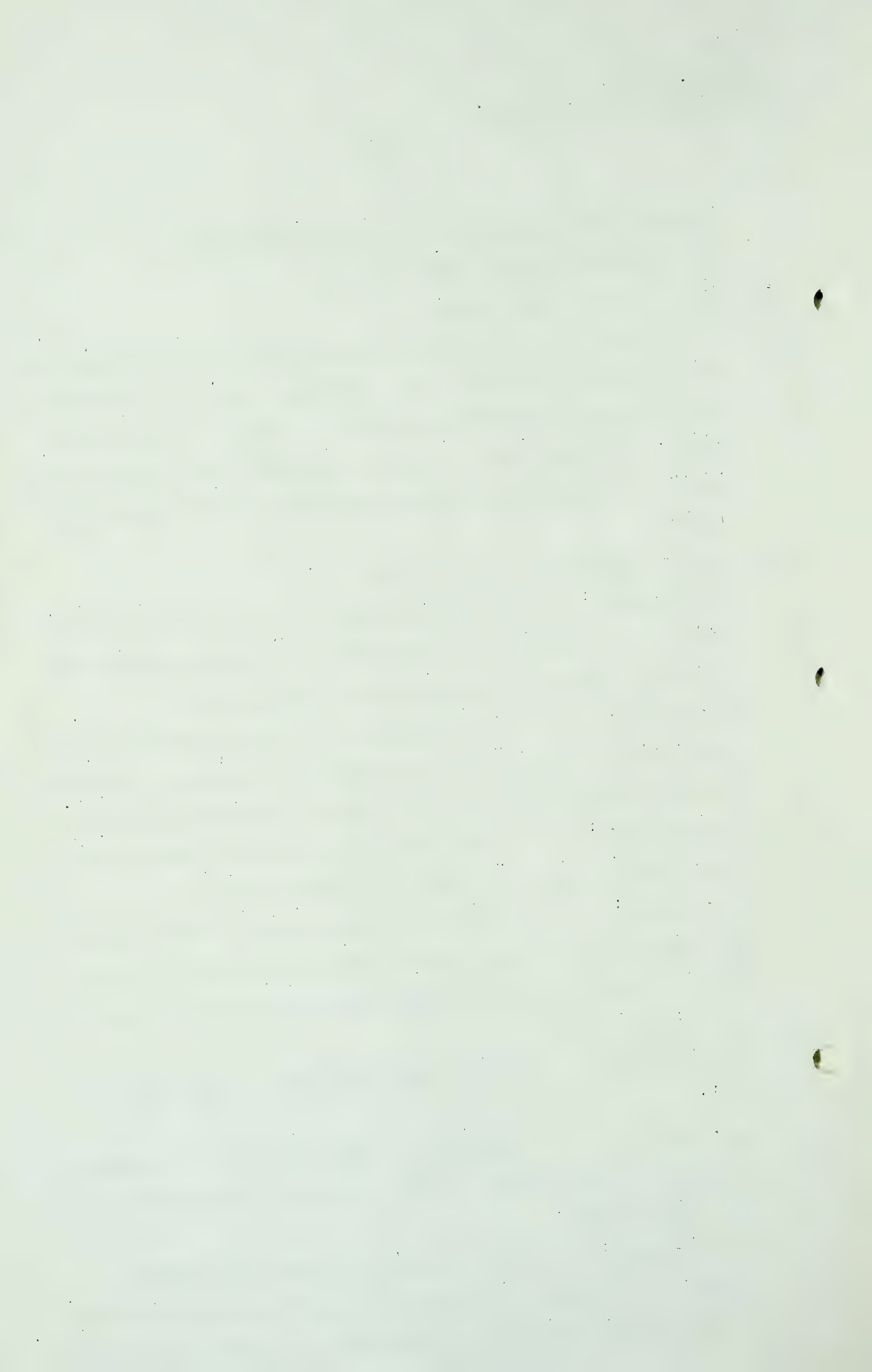
THE CHAIRMAN: I am asking you if you are predicating your question on a free market or closed market ?

MR. HARVIE: I am predicating it upon as they are at the present time, there may be or there may be not, but I do not think there is any evidence before this Board to say at the present time.

THE CHAIRMAN: Except that I happen to know there is not.

MR. HARVIE: Possibly. I would like to be informed of that because two or three people buy it all does not say it is ^{not} a free market.

THE CHAIRMAN: There is no free market if somebody dictates the price rather than the buyer dictates the price. If the seller dictates the price that is a different situation.



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Mr. HARVIE: Well if there are three buyers competing for it I would say it is a very free market. However, that is something we can argue later Mr. Chairman.

Q MR. HARVIE: Now you say you do not think that the Gas Company should pay anything because there is no positive assurance that they are going to get the benefit of having that reserve or repressured gas made available to them at a later date ?

A That Mr. Harvie is one of the factors.

Q Let us just deal with that. Can you tell me why there is no more positive assurance that the absorption plant will get that gas than there is the Calgary market ?

A The absorption plant will get that gasoline as it slips through their plant. That is what we are talking about. That gas that slips through their plant today.

Q And I suggest that the Gas Company will get that gas if it slips into their plant too and I say this Board having control over both of them there is no more reason to judge that it won't get to the citizens of Calgary or the absorption plant or visa versa ?

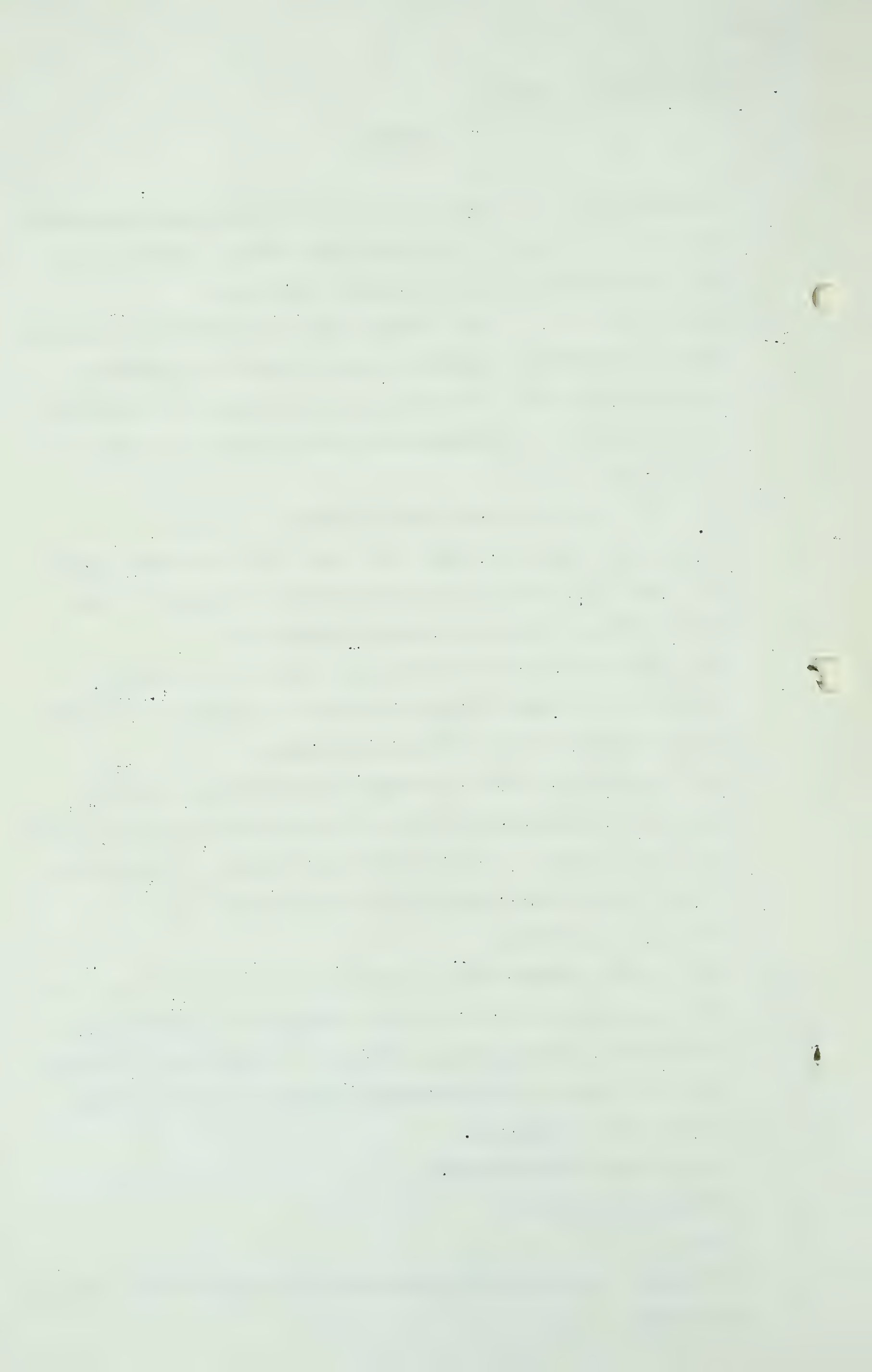
A You are not arguing with me, you are just asking me my view, and I am saying to you if it is a reasonable assumption that the gasoline plant operator will make an increased net profit if he can increase his throughput without an increased cost, that is out of proportion.

Q I agree with that statement.

A You agree with that ?

Q Yes.

A All right, we can see that in front of us and that has already happened.



Ralph E. Davis,
Cross-Exam. by Mr. Harvie.

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Q And if the Gas Company get this gas and increase their reserves by it don't they get a profit out of it ?

A If they get it.

Q You are familiar enough with this Act to know that this Board has the control over the well and gas and who gets it and who it is delivered to ?

A Yes, it has control.

Q And there is no more reason to think they will take it away from the citizens of Calgary and give it to somebody else or take it away from the absorption plant ?

A How often does the Legislature meet ?

Q Just as often as the City of Calgary or the absorption plant wish to....

A I do not know what the Legislature will do.

Q That is right, but I say the absorption plant is exactly on the same level as far as risk is concerned as the citizens of Calgary under the present legislation ?

A Your plant, that is the absorption plant, gets some of this profit in 1946, is that a fair statement ?

Q They get what ?

A They get some of the profits in 1946 that we are talking about this year.

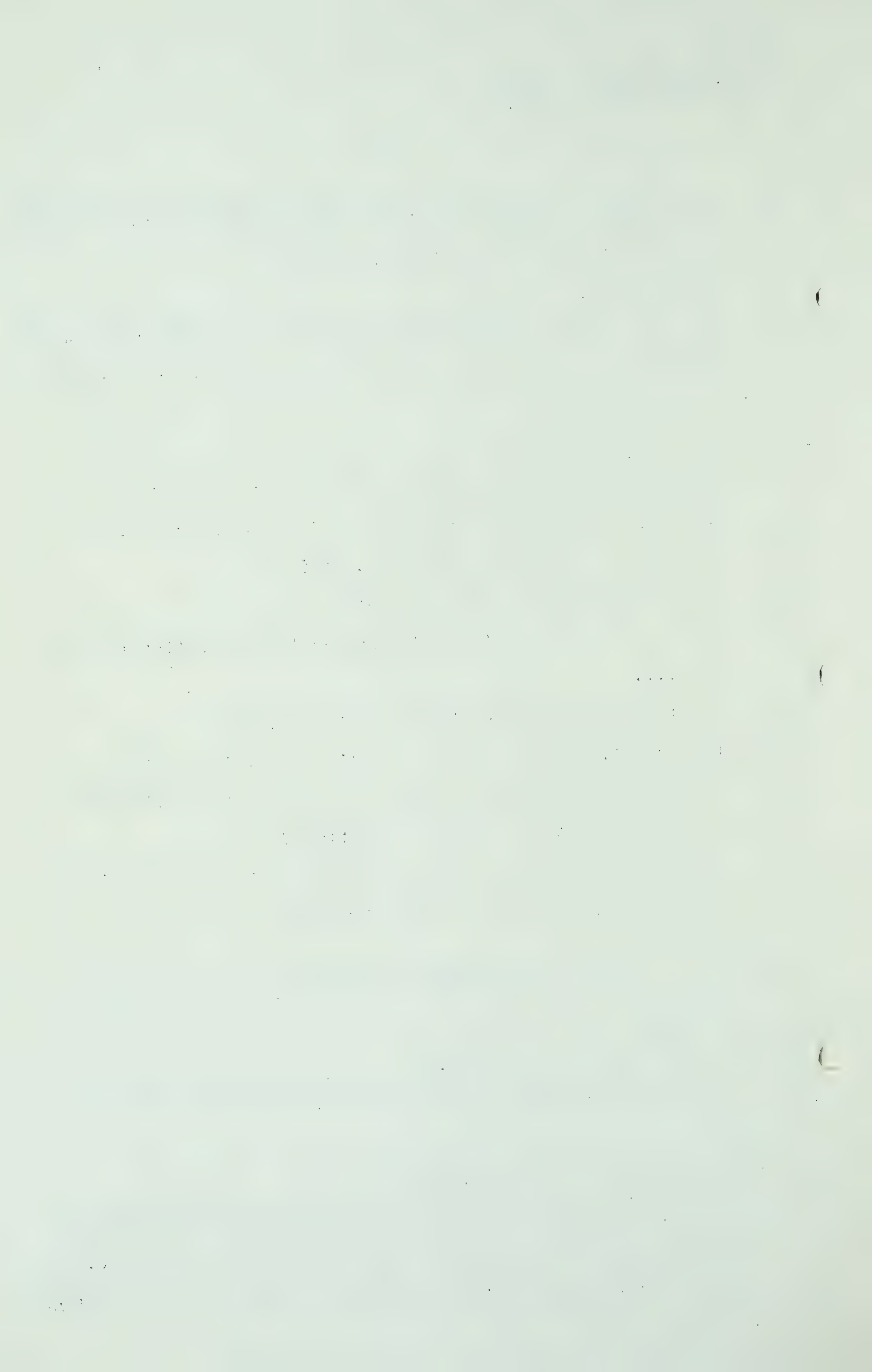
Q Go ahead with your statement.

A Well if you cannot say yes or no to that. Do they or do they not ?

Q I will assume they do then.

A All right, we cannot assume that the citizens of Calgary are getting any benefit in 1946. The benefit is to be in 1960.

Q The absorption plant is just getting it more or less proportionately ?



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- 5619 -

A But making more money are they not ?

Q I do not know.

A Well I am assuming that they are now.

Q Well we will leave that, but you think that beside that the absorption plant will have of the handling of this gas then it is the citizens of Calgary...

A I think so, I can see them handling it right now and we do not know who will be sitting in the Chairmanship of this Board fifteen years from now.

THE CHAIRMAN: You know who won't be though.

A Might be.

Q MR. HARVIE: Now I think you say Mr. Davis at the foot of Page 12 of this Exhibit, "there seems to be no good reasons why the effect of this scheme should be to relieve the B.A. Company of the cost to which it had already been committed to any extent, let alone to the extent of ninety percent of such costs as proposed by the Company". Now I gather you mean by that in the Company's submittal that they suggest that they pay ten percent of the gathering cost of the gas to that point ?

A That is right.

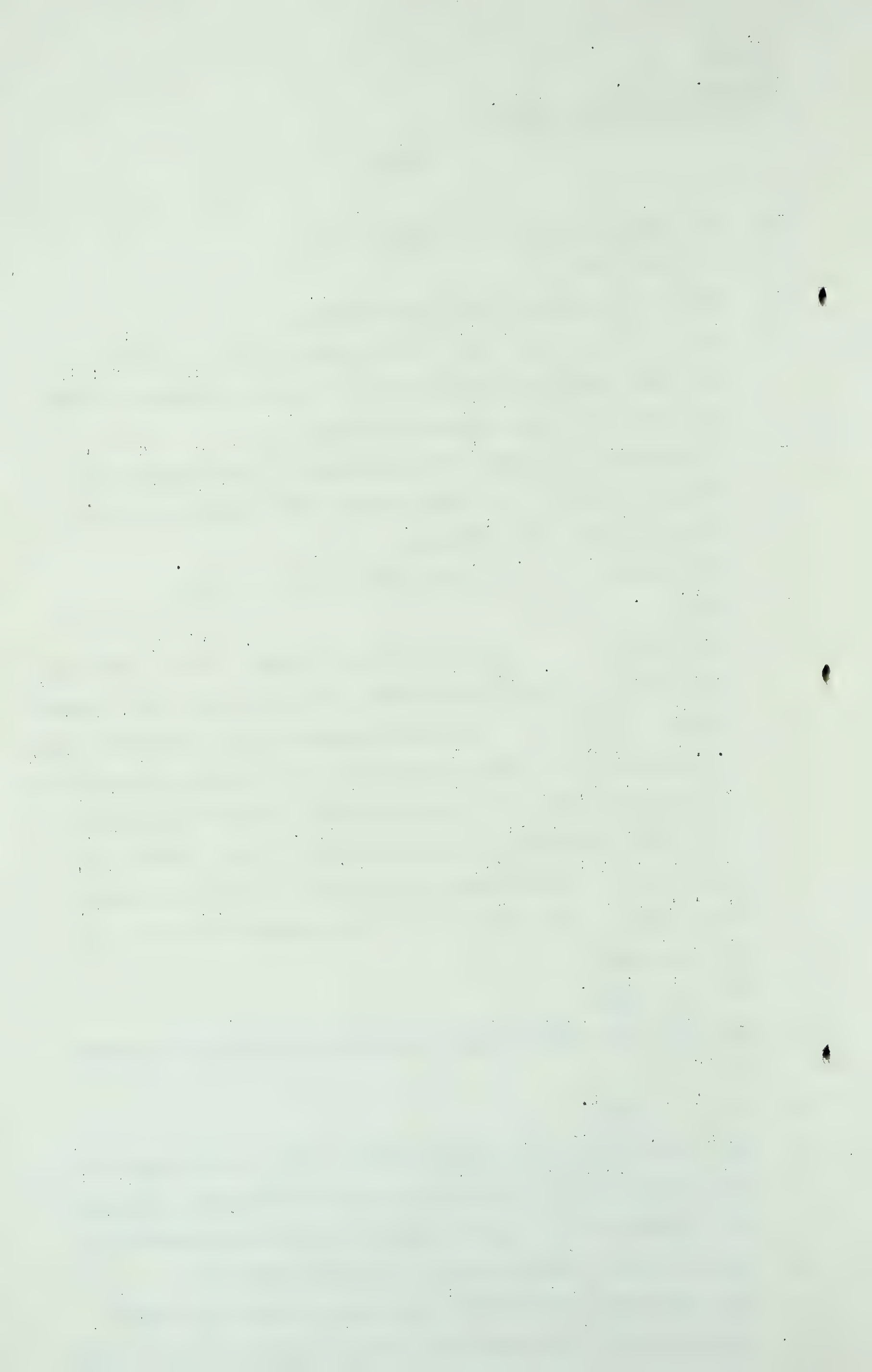
Q And up to the present time they have been paying one hundred percent ?

A That is right.

Q And you know that the basis on which that gas is handled by the absorption plant operation is on a percentage basis with the producer so far as the gasoline content is concerned ?

A So far as the gasoline content is concerned, yes.

Q And you suggest thereafter any change in this old scheme should benefit the absorption plant by ninety percent of that



Ralph E. Davis,
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cost ?

A I did not get the last question.

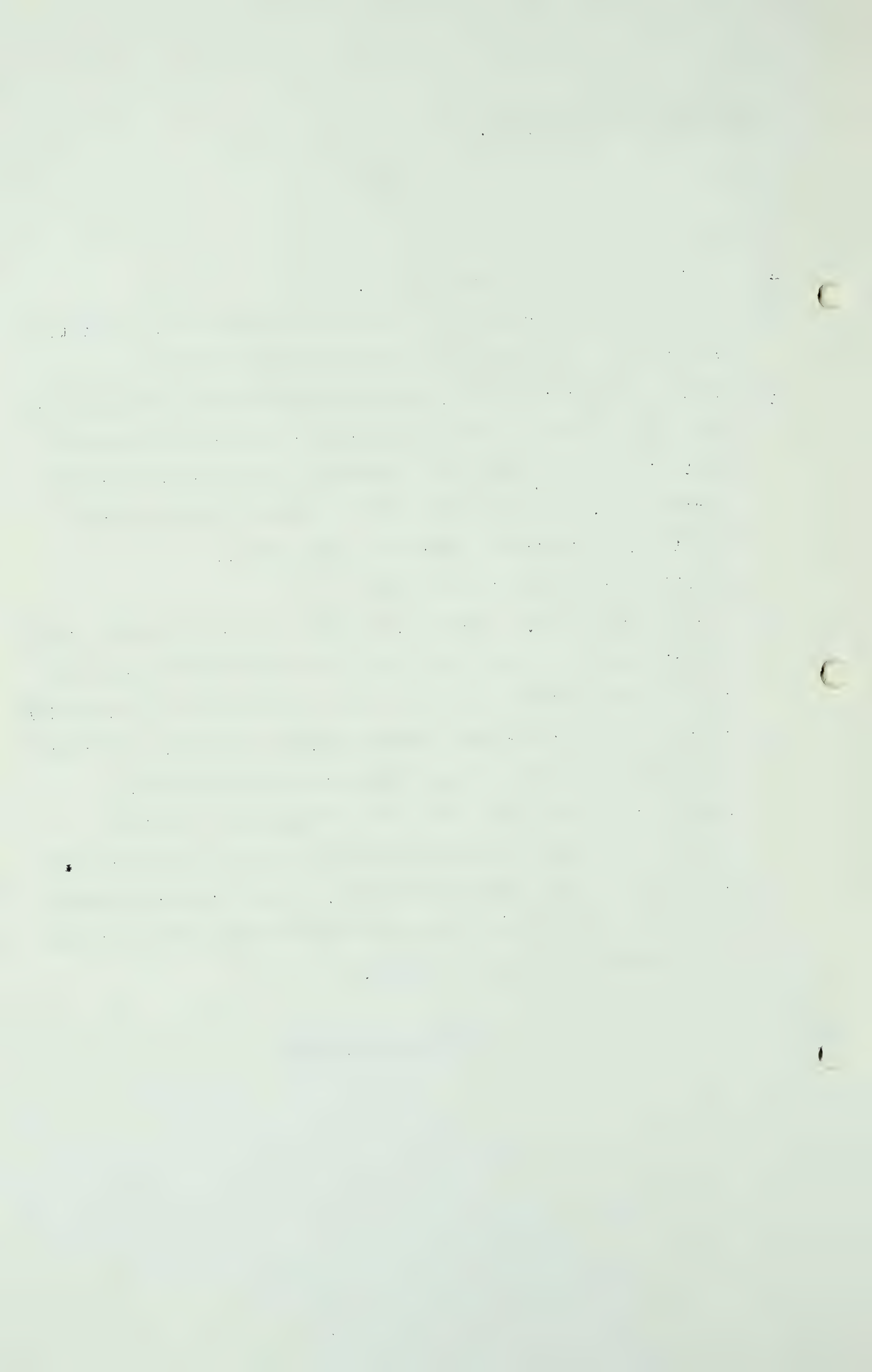
Q You suggest any change in this set-up should not benefit the absorption plant by ninety percent of that cost ?

A Well I suggest that the absorption plant if it can pass over to a gas purchaser ninety percent of the cost of gathering cost will have reduced its operating expenses to an extent worth while. If not worth while we should not be talking about it, so if it is something worth while...

Q We will assume that is the case.

A I can even say Mr. Harvie that when this deal was made with the oil purchaser that you would pay them twenty percent of the gross gasoline recovered that was based on the assumption that the gas after being stripped would be flared. Now that we find a value for the gas which will permit the B. A. Company to reduce its unit cost of operation passing a part of the cost of gathering over to the gas purchaser and reducing the unit cost of operation. Anyway just through an increased throughput to the plant this twenty percent figure ought maybe to be thirty percent.

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Q But that is a matter between the producer and the Absorption Plant and the consumer of gas should not benefit by that?

A I think myself a lot of these things frequently are between the parties making the deal.

Q My point is simply this, Mr. Davis, that rather than pass any benefit of that on to the gas consumer, might it not be equally as fair to pass that back to the oil producer?

A I am saying to you that that stream of gas is his when it comes out of the well. He paid for the well didn't he?

Q Yes?

A And he produces that gas and he produces the gasoline in it. If he can make a deal whereby he can get 30% instead of 20% and at the same time get 2¢ for his gas that is better than getting 20% for the gasoline and nothing for the gas.

Q That is purely between the producer and the Absorption Plant operator?

A That would be true and the producer is getting a fair percentage of the gasoline and a fair price for the gas.

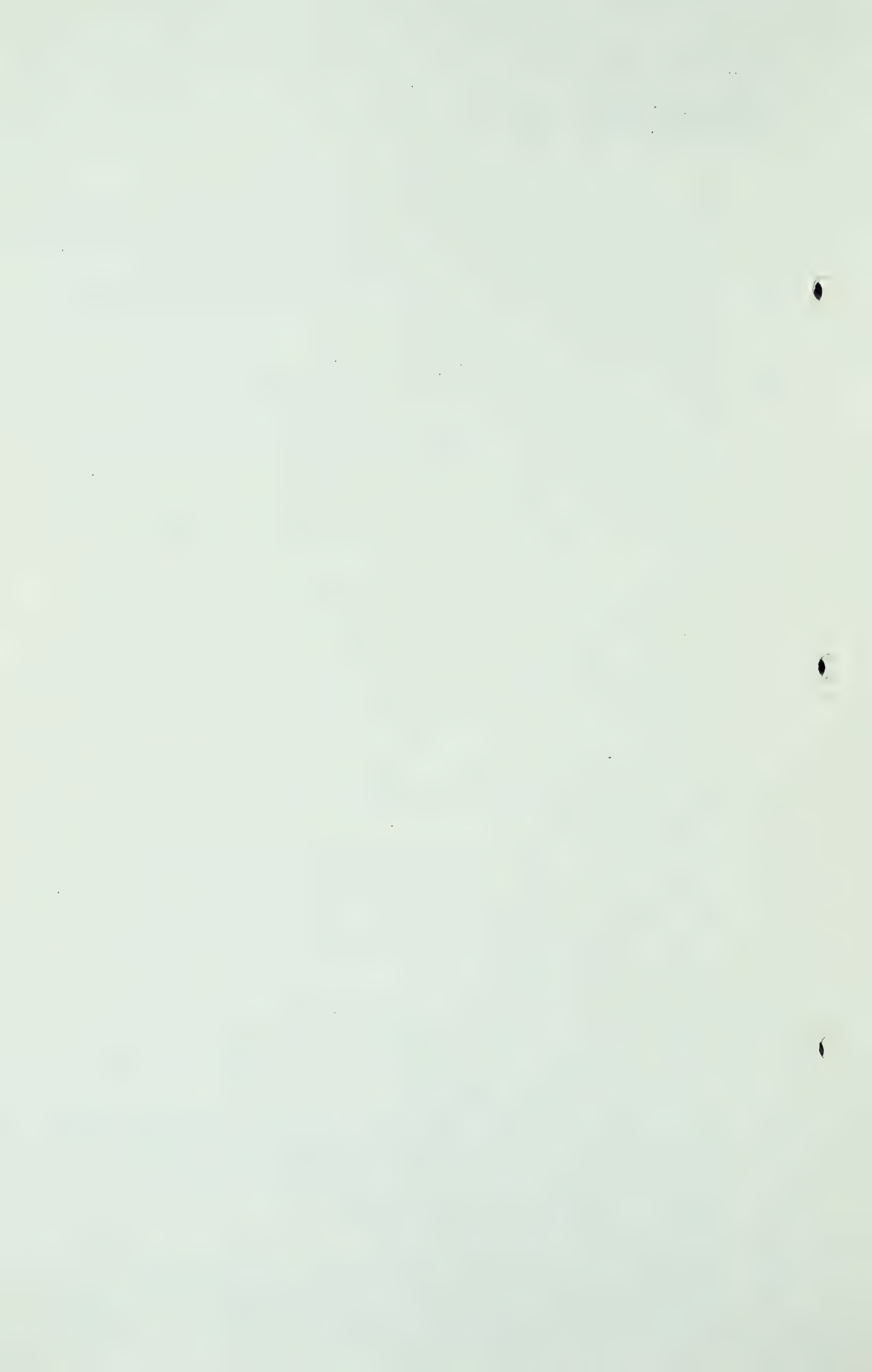
Q You are aware that it is contemplated that this Board will deal with that?

A Maybe that is the reason why we are here talking about this. You and I are discussing this because the Board is going to make a decision.

Q I am discussing your suggestion about the absorption plant and you are talking about this 90% that you say it is trying to pass on to some person?

A I think 90% is much too high.

Q All I am suggesting to you is - and I might for the purposes of this discussion agree with you to some extent



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that the absorption plant should not benefit to any extent of it, but I am asking you might it not be reasonable instead of the consumer and the gas company getting it that the producer of it should have it?

A You are going to let the consumer, who may or may not get any benefit, absorb the carrying charges. No, I cannot see that.

Q Supposing there was no absorption plant and this was sweet gas, would not the consumer pay all the charges from the well head?

A Assuming that there was a gasoline plant on the line?

Q No assuming that there was no absorption plant or gasoline plant as you call it or that there was no necessity of scrubbing the gas, would not the consumer pay the gathering, compression and transportation charges from the well head to the consumer?

A If he bought the gas at the well head he would. But if he bought the gas elsewhere

Q Is there any reason he should be put in any better position than that because the producer of the oil happens to have some interest in the wet gas and wants it taken out?

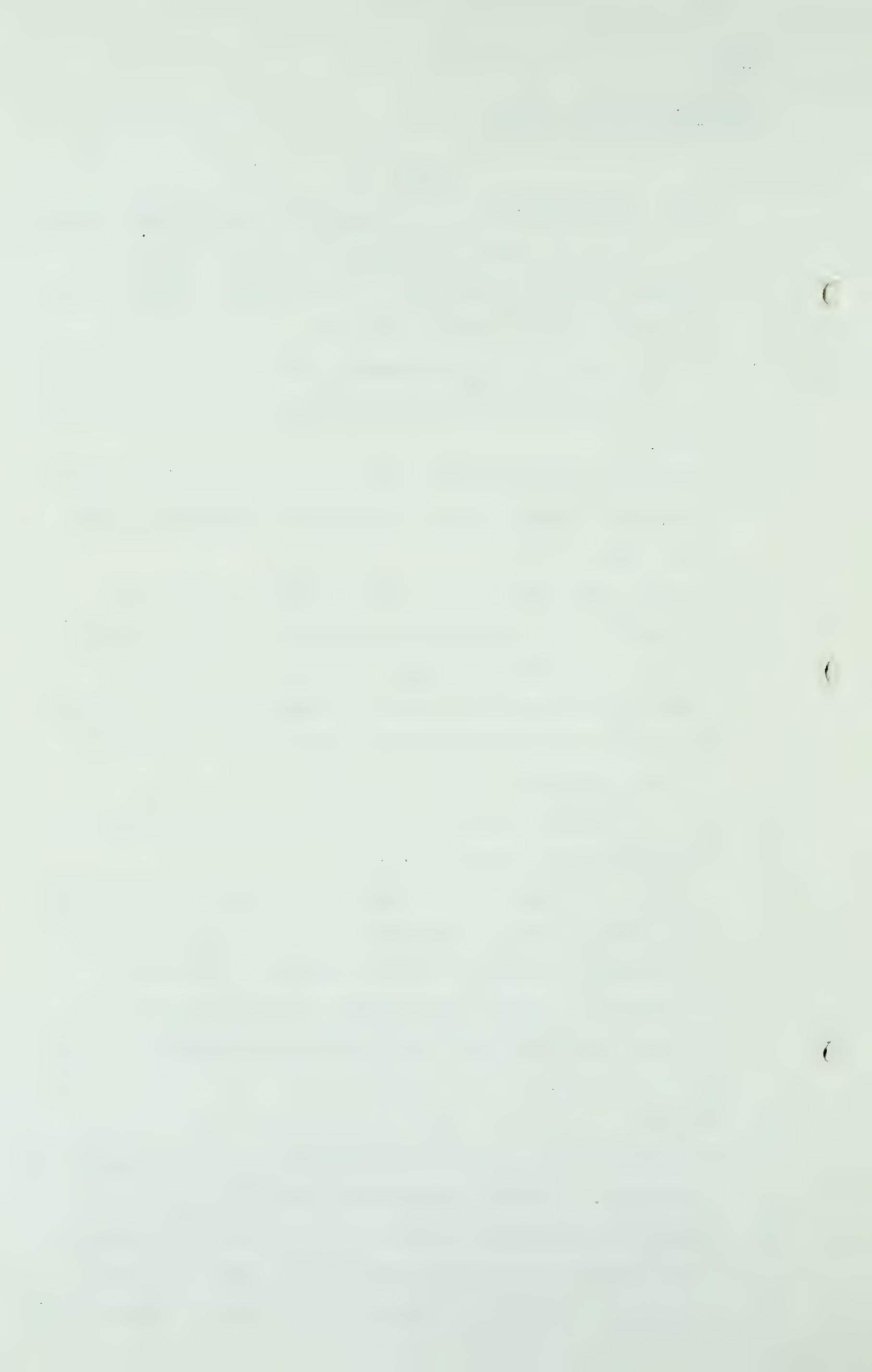
A It comes as I see it, Mr. Harvie, to the same thing. If he buys gas at the well head then he is responsible for it from then on.

Q Who is?

A The man who buys it. In this case you are suggesting the consumer. If the gas is from the well head

Q The consumer does not buy it in this set-up. The consumer buys it at the downstream side of the scrubbing plant?

A All right. Now at that point I think he pays a higher price



Ralph J. Davis,
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for it than he pays at the well head. Between the two somebody pays that gathering charge.

Q The consumer would pay that in the normal course if he bought it at the well head as dry gas?

A He would have to if he bought it at that point.

Q That is all, thank you.

.....

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. BLANCHARD.

Q I want to ask you a question that relates to royalties, Provincial royalties. In several Orders-in-Council the expression used is Royalty on natural gas products and there is a distinguishing term, petroleum products. Now can you give me your opinion as to whether absorption plant gasoline is a natural gas product or a petroleum product? It relates to royalties and in some Orders it is different one from the other?

A I believe it is a natural gas product. It is closer related to natural gas than to petroleum. But that is a question I believe for the chemist who is more familiar with the content.

Q I see. I did not know but what a royalty in your own country was based on, that is that the basis was different for oil, petroleum, on the one hand and natural gas products on the other?

A Very seldom is it different. It is usually the same way.

Q But you think absorption gasoline is more allied to natural gas than petroleum?

A It seems so to me.

Q More closely allied?



Ralph E. Davis,
Cross-Exam. by Mr. Blanchard.

- 5624 -

A It seems so to me.

Q I think in your Exhibit 148 you suggested that the producer should pay the cost of repressuring the gas so long as that gas is not I should say storing the gas and not repressuring, so long as that gas is not impressed with the trust for the consumers who are the customers of the gas company. That is, as I understand your evidence, is that correct?

A I think that it would be very difficult to get anybody voluntarily to undertake the cost of storing gas unless he had an absolute command of that gas when he wants it.

Q As I understand it, so far as the Royalite proposal is concerned and that proposal is that they will buy the stored gas at whatever the wellhead price may be fixed discounted for 15 years at 8%, you understand that?

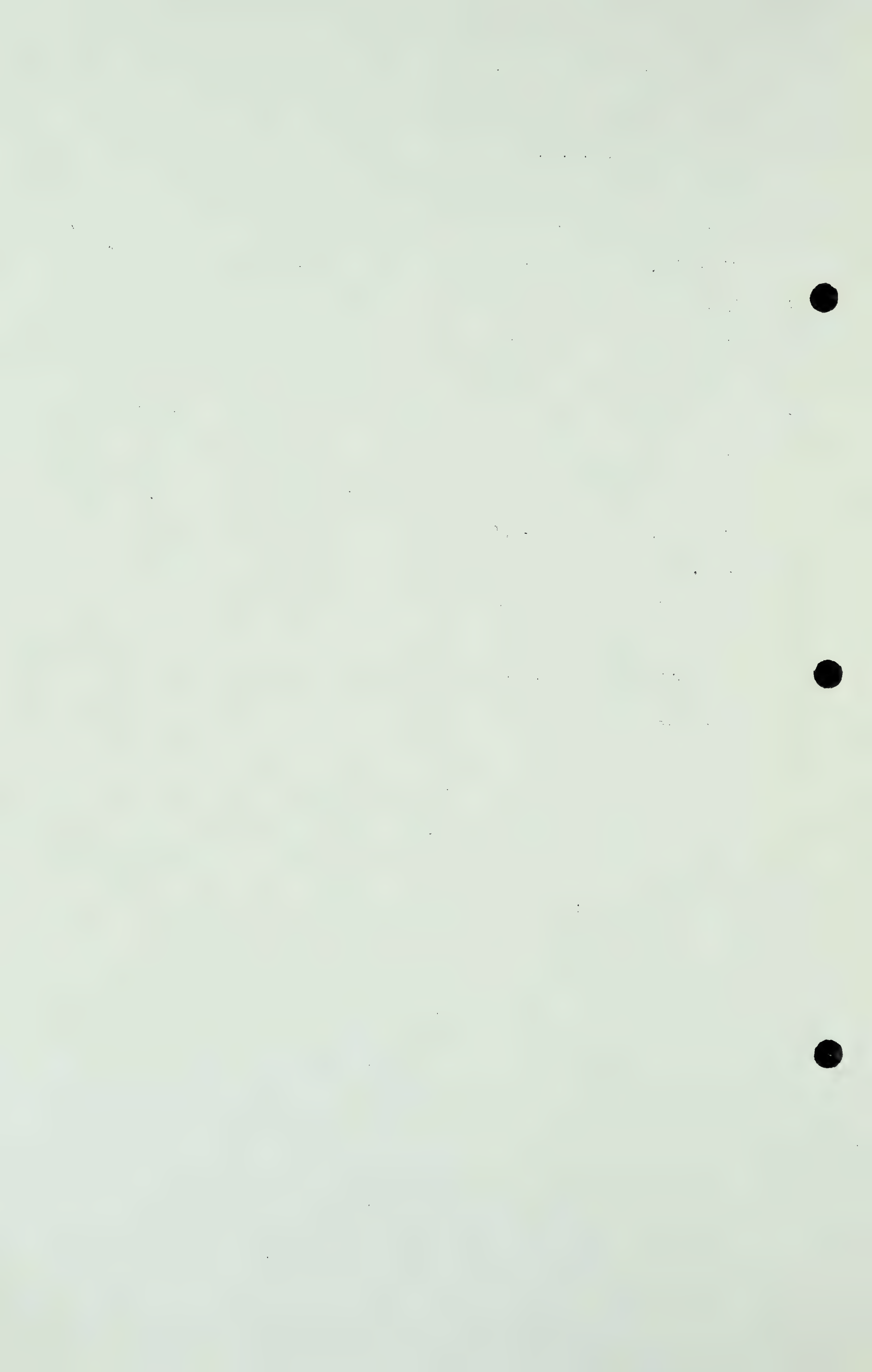
A Yes.

Q My understanding is that they have also put into that proposition this that that gas will be impressed with a trust for the citizens of Calgary, is that correct?

MR. CHAMBERS: I think the proposal as filed is that when it was produced the price would be neither more nor less and I asked Mr. Davis to assume a certain situation that it was impressed with a trust. That is not in the proposal. It is a matter though that we are giving consideration to.

Q MR. BLANCHARD: Assuming that it were impressed with a trust that stored gas then would you say that the consumer should pay for it, pay the cost of re-storing it now?

A When that gas comes out of the ground in the assumed 16th year it is going into the lines at an assumed or a price fixed by the Board. If the Board should happen to fix 2¢ for the well head cost then 2¢ at 8% compound discounted for 16 years



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Cross-Exam. by Mr. Blanchard.

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comes down to about 63/100ths of a cent.

Q Yes?

A All right. Do you want the consumer to pay 63/100ths of a cent and then 15 or 16 years from now what have you?

Q No, Royalite pays 2/3 of a cent let us say?

A O.K. Let Royalite pay. That is their proposition and then in 15 years let them sell the gas into the pipeline at whatever rate the Board then fixes, 2¢ or $2\frac{1}{2}$ ¢. If they want to agree that when this fifteenth year comes along they will not take more than 2¢ that is fine with me.

Q That is the offer of Royalite and they are not making any alternative offer?

A I do not have any criticism of them.

Q Assuming the cost of storing this gas is 2¢ a thousand cubic feet now, would you suggest that the producer accept half a cent or 2/3 of a cent or I should pay 2¢ to store it in Royalite's reservoir?

A Who is going to pay the 2¢, Royalite?

Q You are suggesting that the producer pay it?

A No, I think there is a mistake there.

Q That is just what I wondered.

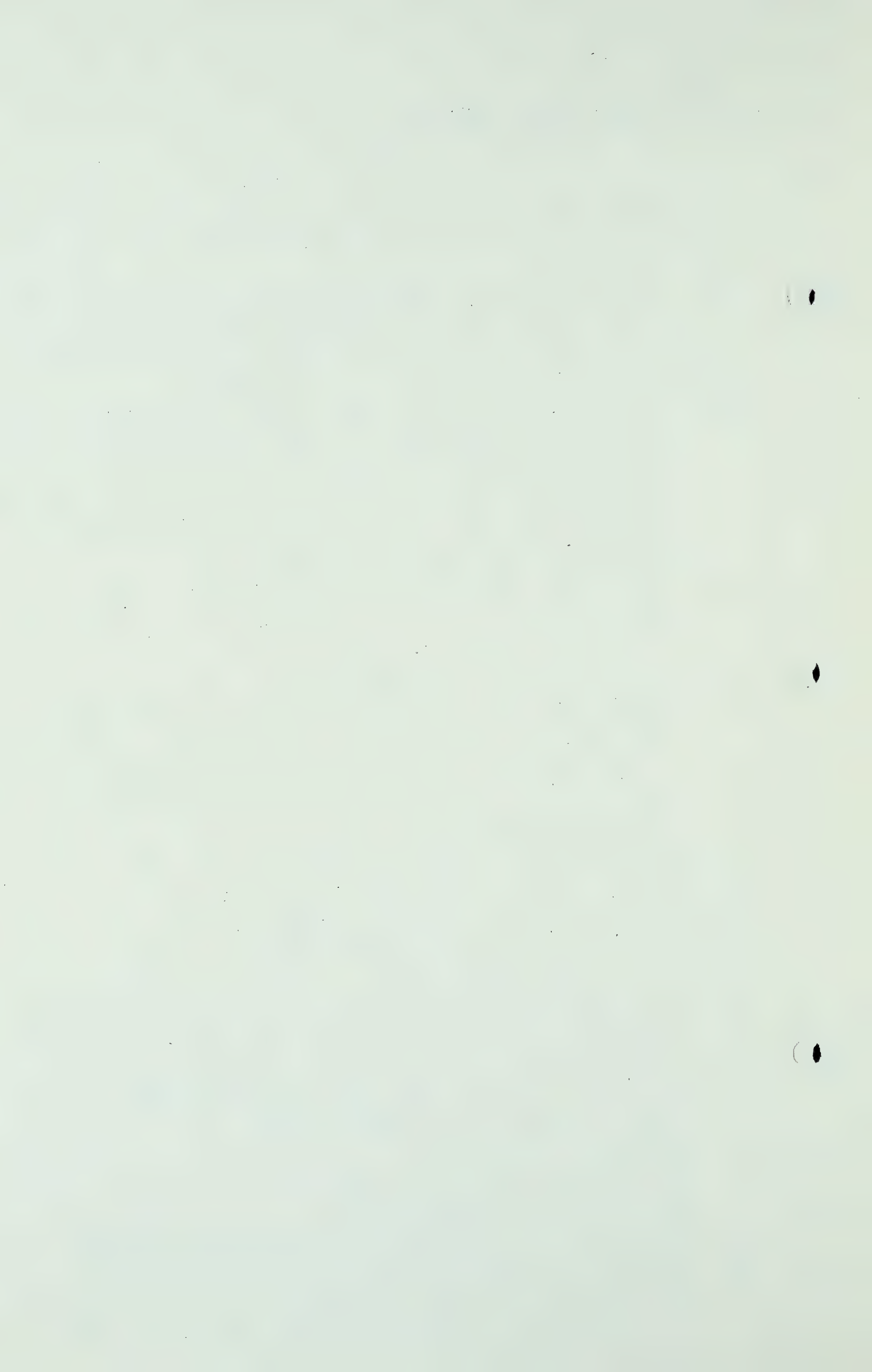
A I am saying that fundamentally, Mr. Blanchard, here is the producer of an oil well, the owner, and he has got some excess gas. The Government says we don't want you to waste that gas. Is not that the case?

Q That may be the case?

A Well it looks like that to me.

Q Why does not the Government want him to waste the gas?

A Well for the same reason that they want these farmers out here not to let their land erode. They do not want



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the country destroyed in a generation.

Q Because someone is going to use it and because it has a value?

A Yes. I just think that the country should be preserved and among other things the natural gas reserves, timber and soil and everything, it should not be destroyed in one generation. That is the reason.

Q Do not let us get away from what I am trying to get at here. Your suggestion is that if this gas that is sold to the Royalite say for two-thirds cents now, which is a discounted price, that if it is not impressed with a trust for the customers of the Gas Company then the producers should pay the cost of putting it into that reservoir?

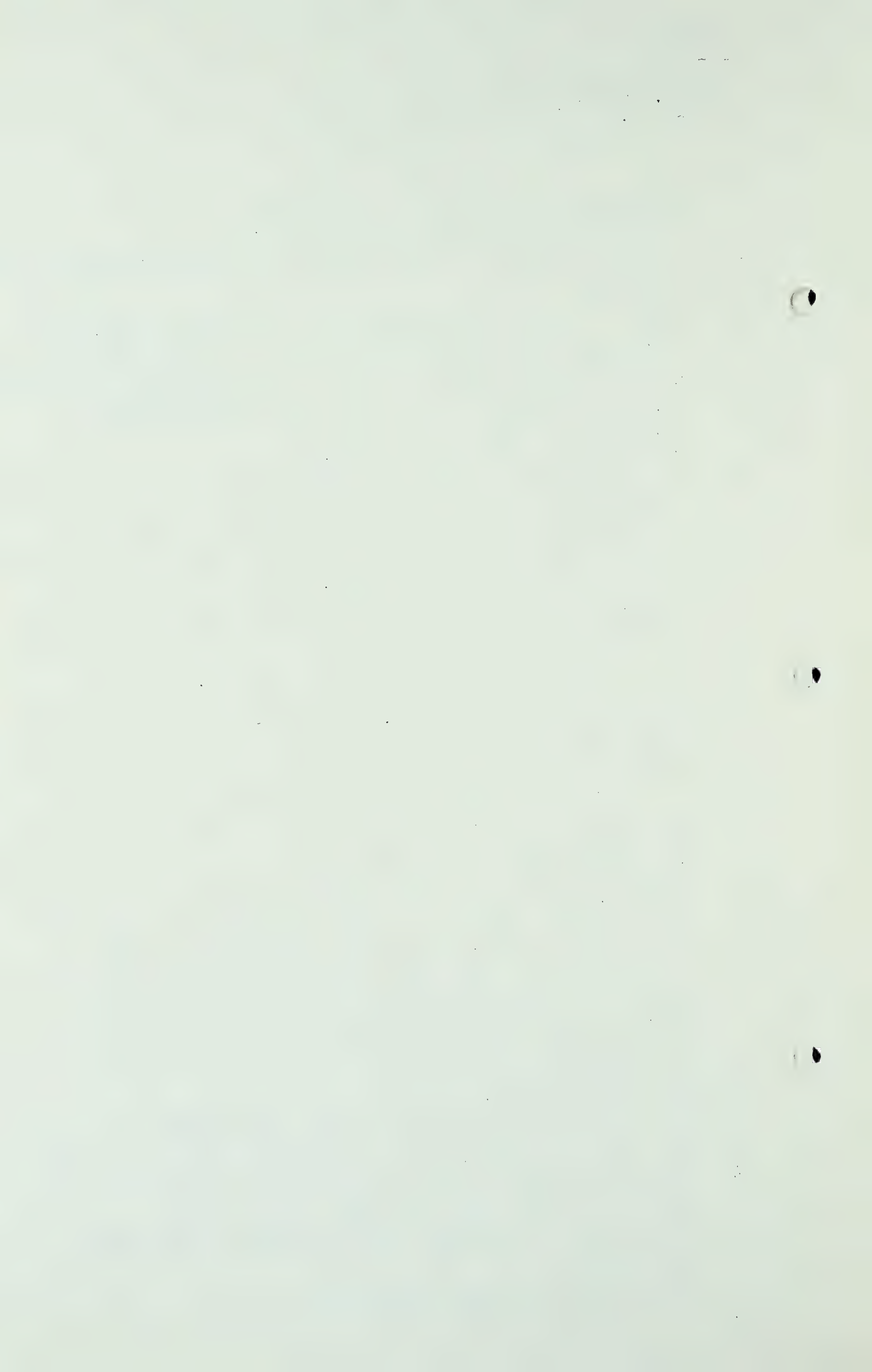
A No, I did not say that, Mr. Blanchard. I did not mean to carry that thought. If because this oil producer does not have a compressor and a suitable place to store the gas, gas during the winter months flows into the market, and in the summer months the logical thing is to let it flow through those lines and go to that company substantially equipped with a storage reservoir, wells, compressors and that company then, if they have offered to pay half a cent or two-thirds of a cent for the gas, that gas then becomes their gas and they pay the cost of storing it. That is what I would mean.

Q The Royalite will then pay the cost of storing?

A Yes, they will pay the cost of storing of the gas and the gas will be theirs to sell when the time comes.

Q But they do not propose to pay the cost of gathering or compressing?

A I do not know who they expect to pay it.



T-6-7

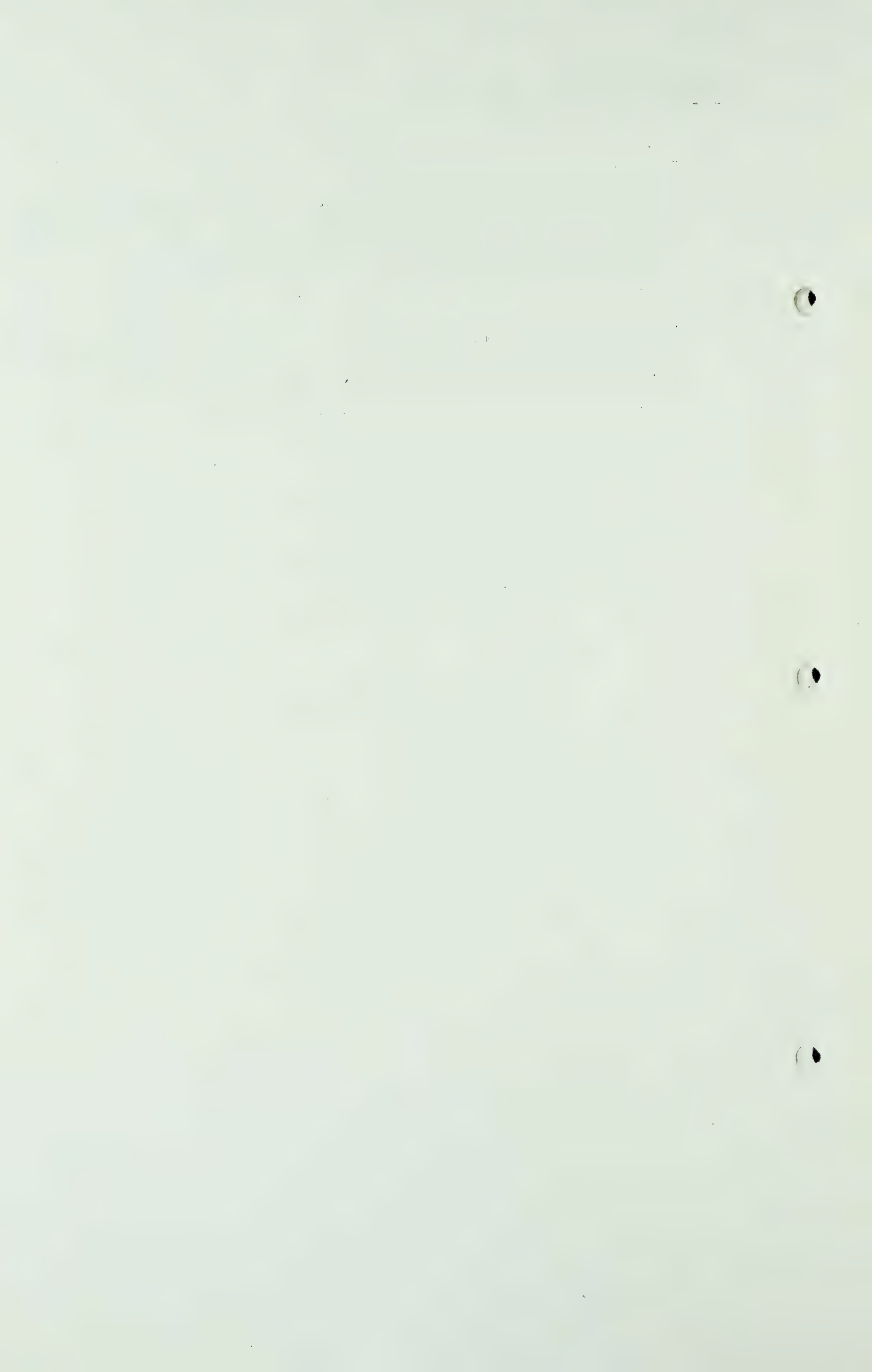
Ralph E. Davis,
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Q They expect someone else to pay it, and that is what I am trying to get at, who should pay it? You say if it is not impressed with a trust it should be the producer?

A No, I do n t say the producer. I said that the gas should be conserved and purchased and conserved by the man who is going to own it. Did I not say that in this paper?

(Go to page 5628)



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Q Suppose the man who is going to own it cannot be made to pay the costs of that storage, the compressing and gathering.....

A If there is going to be any forcing in the matter, I think the force should be applied to the man who is in the first place wasting the asset, I do not think any third person should be forced to conserve gas wasted by a first party.

Q You will agree then, at any rate you will agree that if there is any other.....

A Mr. Blanchard, let me interrupt you please, I say here:

"Gas returned to the reservoir should, in my view, be valued at less than $\frac{1}{2}$ cent per M.C.F. at the well head, and then be owned by the operator purchasing it and conserving it, and enjoying the benefit of eventually marketing it."

That was from page 14.

Q That is a half a cent at the well head, and pay the gathering costs and the storage costs and the compressing costs?

A Yes.

Q To put it back into the ground?

A Pay those costs if that is what they figure.

Q And if Royaltie is not willing to do that, then what are we going to do about it?

A Well frankly, I know what I think should be the solution but I do not think it is practical or worthy of suggestion here. I think the Government ought to do it and then sell the gas and get their money back. The Government puts this obligation on somebody and if the thing to be done is not worth doing, in the view of the producer, if he is not willing to put this gas in the ground so that he can sell it at a future date, why not let the Government sell it at the future date?

Q The oil well producer is not to put the gas in the ground as

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an alternative to producing his oil, under this legislation, he can produce his allowable, this Board is compelling him to deliver his gas into the lines where it can be economically done, but if he is not hooked to a line he can produce his well and if he cannot make the pressure, the line pressure, he can burn a flare, as long as he does not produce more than the Brown allowable, you understand that?

A That is right.

Q Now for whose benefit is this storing being done then, it is not for the producer?

A Well no.

Q He is not being forbidden to produce, if he does not store the gas?

A Well in Pennsylvania we have a law forbidding the emptying of certain kinds of refuse into streams on the ground that the pollution of those streams is harmful for the majority of the people, it destroys the fish and whatnot. Now it seems to me that the factory that produces that filth is the one to pay the cost of disposing of the filth elsewhere, rather than to go down and find some farmer who has land along the stream and say "Mr. Farmer, you pay for it".

Q I do not want to argue whether there is an analogy between gas and filth or not, but we just come to this, that you suggest the producer should pay for storing the gas which costs 2 to $2\frac{1}{2}$ cents according to the information which we have at present, and that he should get 2 cents per thousand cubic feet at the well head for his gas, that is he gets 2 cents a thousand cubic foot for his gas and pays $2\frac{1}{2}$ cents to have it stored, that is such part of it as is stored, does that seem reasonable to you?

A Well I make the statement here that I think the producer should

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get no more than half a cent for the gas which is stored, and that is not more than half a cent and it might actually be one-tenth of a cent or it might be nothing, if the gas is not worth storing. This gas, after you put it down in the ground, Mr. Blanchard, can surely be considered as worth no more than and no less than another thousand feet of gas that lies down there beside it. Now are you telling me that gas in that ground, down in that ground, 350 billion cubic feet of it, is presently worth $2\frac{1}{2}$ cents a thousand?

Q No?

A No, I do not think you are. It is not, in my judgment, worth so high a figure, and any gas that you pick up and put down there is not worth any more than an equal amount of gas already there, so unless you can put the gas down there for less than the 2 cents you are talking about, you had better not put it down there at all.

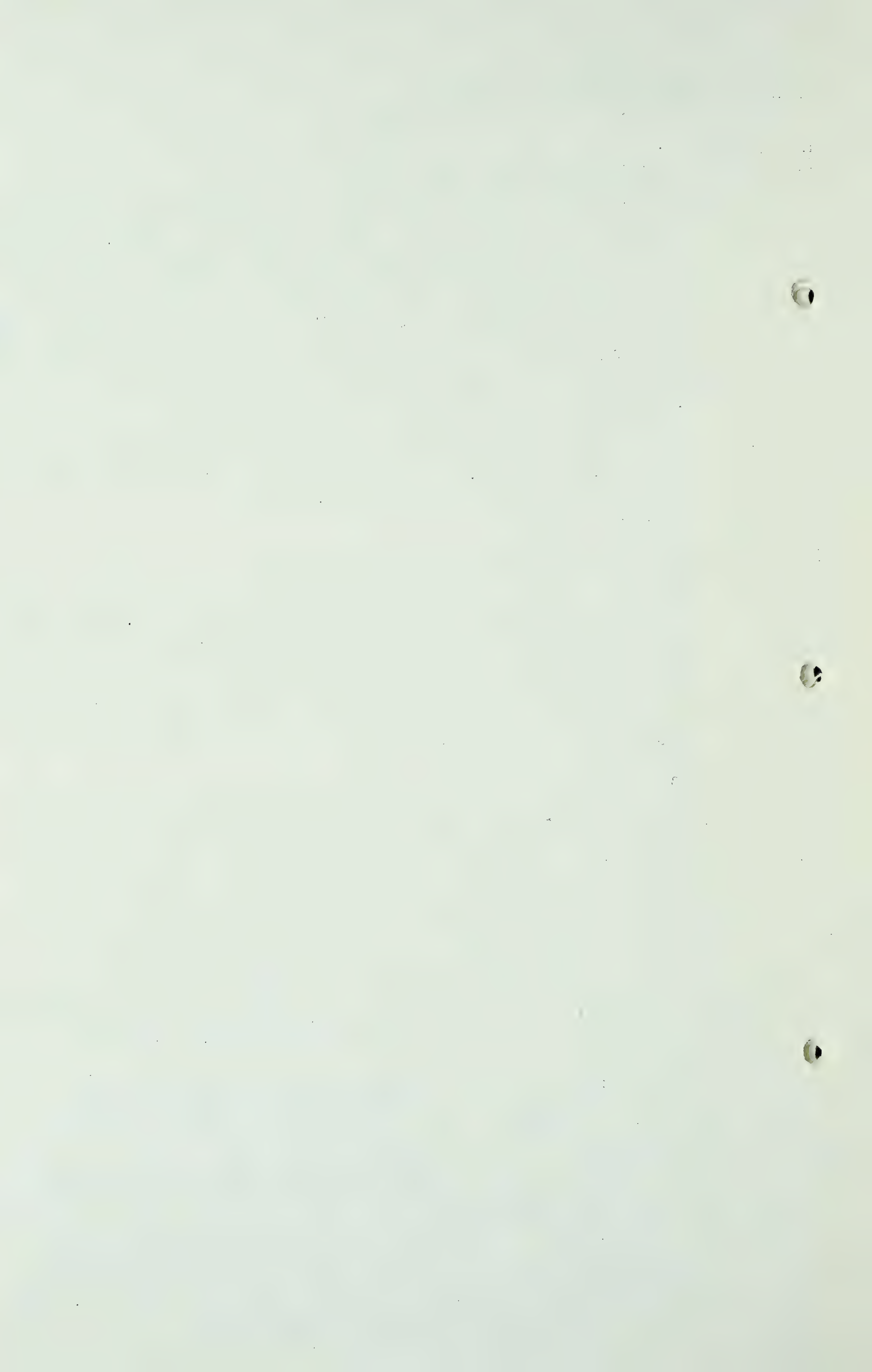
Q THE CHAIRMAN: Of course the amount for which they receive the 2 cents would be vastly bigger than the amount which would be repressured with reference to which they pay the half a cent, they pay 2 cents at the well and it costs $2\frac{1}{2}$ cents to repressure it, and they are losing 2 cents on that part going into the ground, is that not it, Mr. Hamilton?

MR. HAMILTON: It is the proportion of the one to the other..

MR. BLANCHARD: I just wanted to bring it to the witness' attention.

THE CHAIRMAN: And I am very pleased that you are doing it, Mr. Blanchard.

Q MR. BLANCHARD: Now let us go from there to this, where did you get the idea that gas, the price of gas had been fixed at 2 cents in the past at the well head?



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A I understood that Royalite has purchased gas in the field at 2 cents a thousand cubic feet.

Q That was when they had an exclusive contract to supply the Gas Company, and you would not call that a willing buyer and a willing seller price, I mean to say, the person who sold gas to the Royalite had no other place to sell it?

A That may have made him a very willing seller.

Q Because they had no other market, but there is no competitive market for the gas, Royalite having an exclusive contract?

A Well I understood that sometimes you had but that does not demonstrate that the seller was not a willing seller. He may have been a willing seller, he had that chance to sell or no chance to sell.

Q He was probably glad to get anything?

A Well that is so.

Q So far as it being a fair price.....

A That might be something else, I still think it was a fair price, but that is another question.

Q THE CHAIRMAN: But they were not able to trade at arms length?

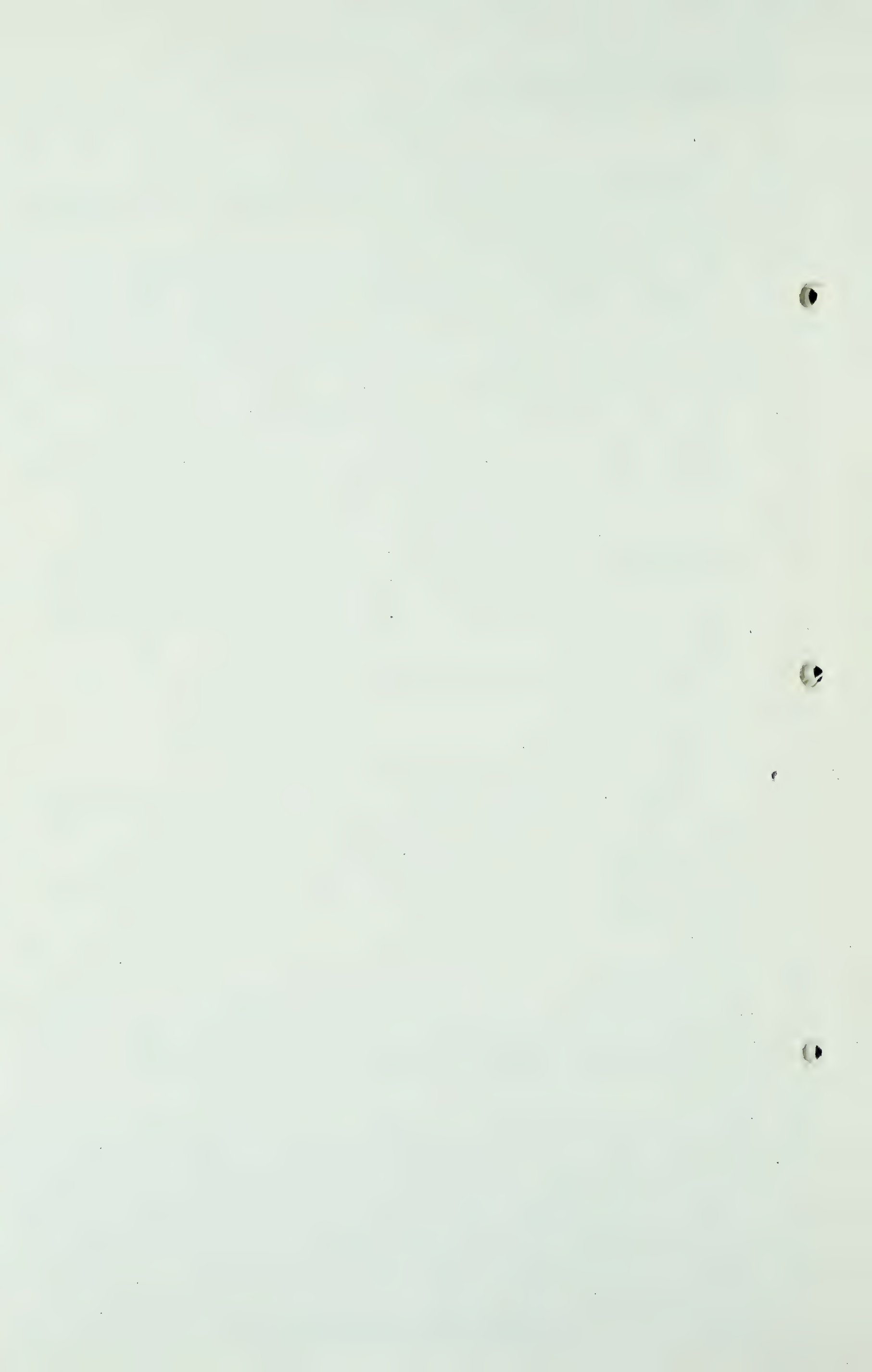
A Well.....

Q MR. BLANCHARD: Well in any event prior to the Weymouth Plan which you have mentioned in your statement, prior to that, the figure was $7\frac{3}{4}$ cents delivered to the Gas Company?

A Yes.

Q And the Weymouth Plan contemplated a heavy investment by Royalite for additional installations to bring in this 95% or whatever it was, conservation, and do you say, I think you suggested that the price should still continue at $7\frac{3}{4}$ cents, under the Weymouth Plan, the price would still be $7\frac{3}{4}$ cents to the Gas Company?

A Well, I did not assume that Mr. Weymouth planned it that way, and



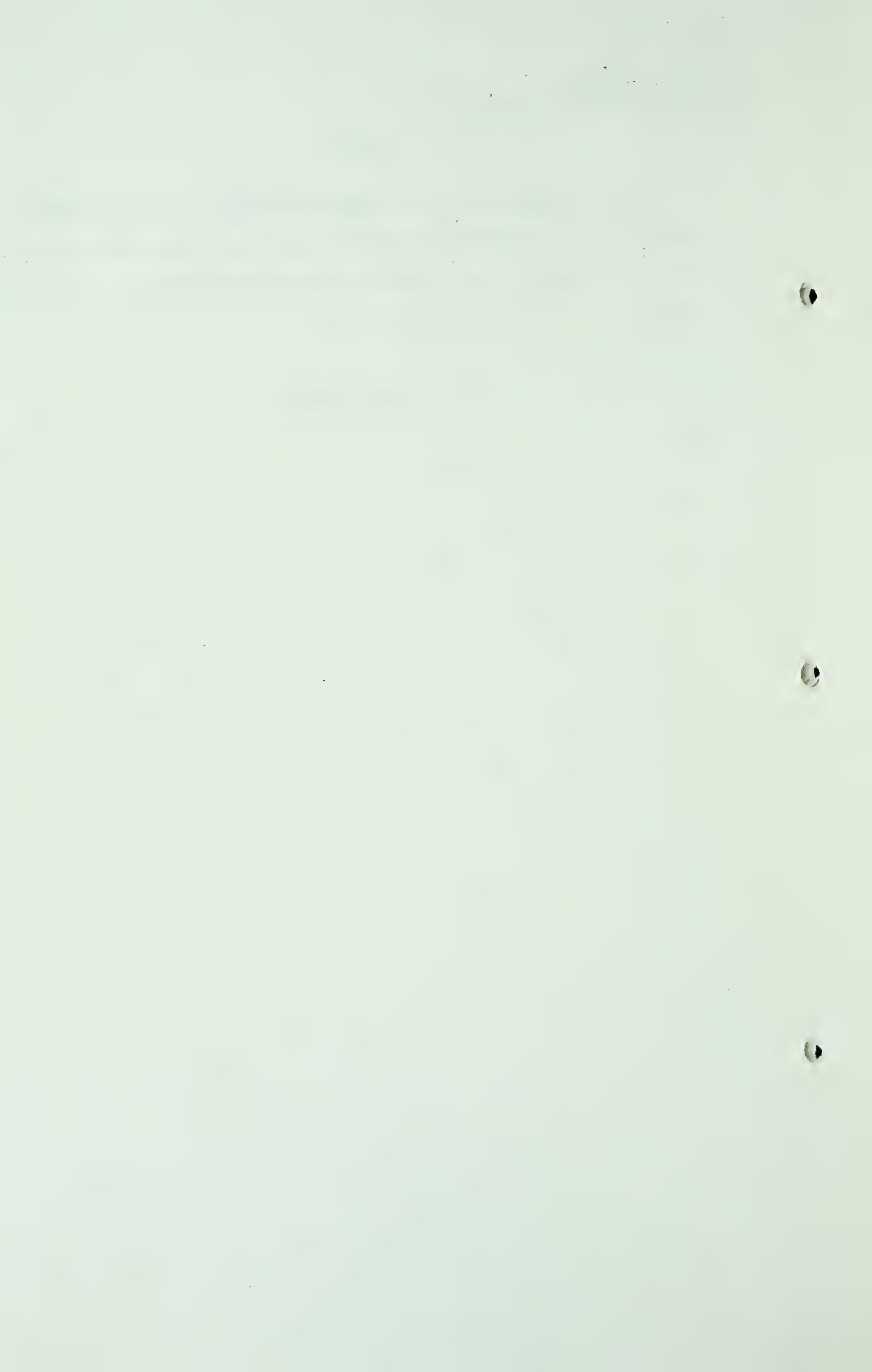
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I did not assume that Mr. Weymouth's suggestions for conservation were particularly well founded and I did not assume that they should put in any equipment which should be useful for only one year to conserve gas.

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Q If Royalite were going to expend three quarters of a million dollars say in carrying out this scheme for conservation, do you think they still could sell at seven and three-quarter cents and make as much for gas at the well head ?

A No I do not think so. I do not think the Royalite should spend three quarters of a million dollars on a scheme for gathering some gas that after you put it back in the ground is not worth over two cents or some such figure.

Q Well the actual fact is that a Company has spent a lot of money in extending their installations. You know that ?

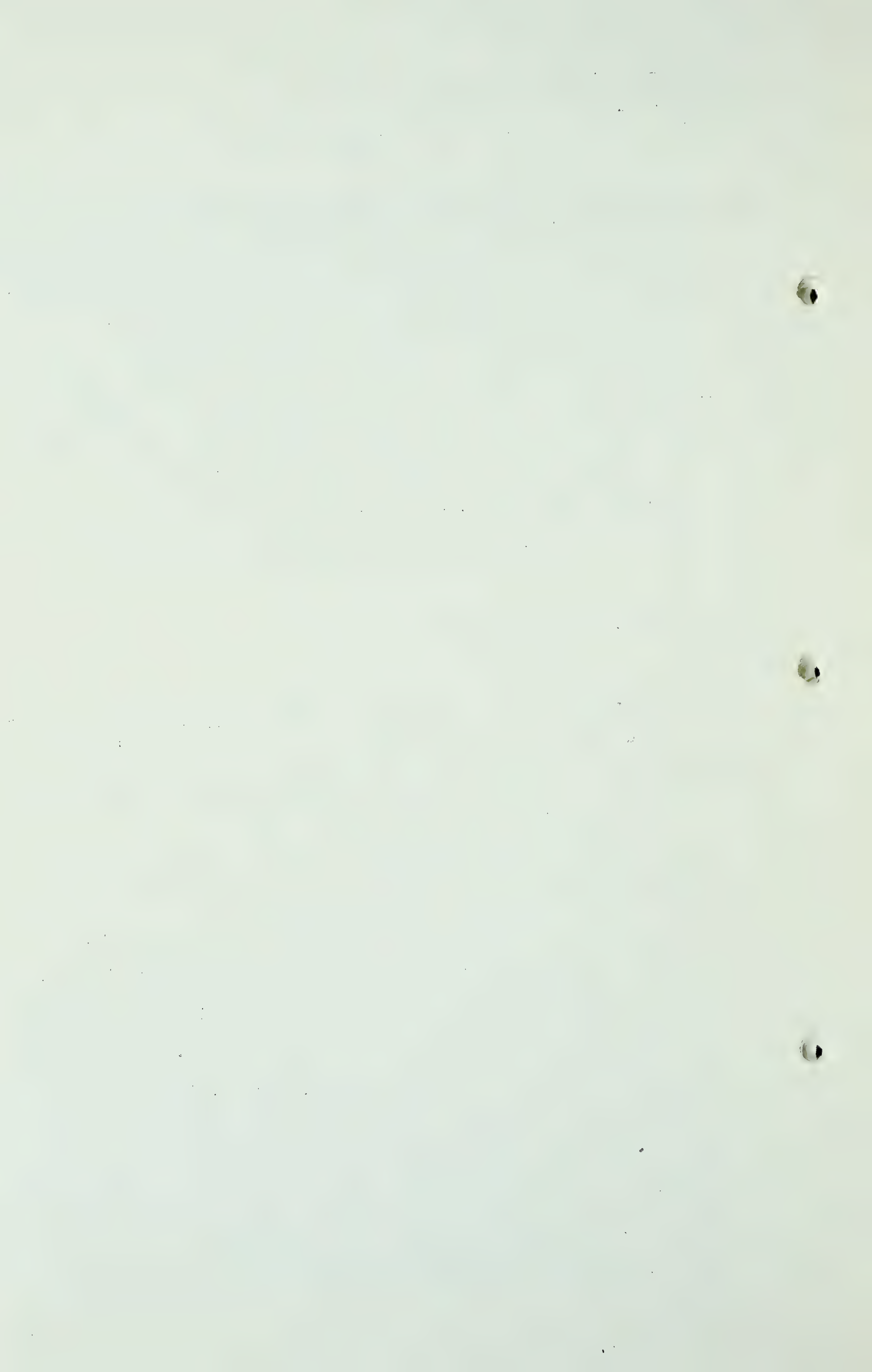
A Yes.

Q A great deal of money ?

A Yes.

Q And assuming it had been Royalite that had spent that money do you still say that it could still sell gas at seven and three quarter cents to the Gas Company and get as much money for its well head price for the gas itself ?

A Royalite selling gas for seven and three quarter cents and at the same time letting a lot of gas go into the air, let us say a sixteen year life ahead of them. Proposition No. 2, Royalite spends three quarters of a million dollars extending the life from sixteen to twenty-four years. They do not make so much net profit in the first, second, third or fifth year, but in twenty-four years they will probably have made more. How much more I have no details. The Royalite would if they increased their reserve handle the thing in such a way as to increase the thing for eight years as compared with sixteen, should be prepared to stand a very substantial part of that three quarters of a million expenditure you are telling me about.



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Q So you think they would gain by the extension of the life of the field and still be able to sell ?

A Yes, I think so.

Q Now you are familiar with the absorption plant contract whereby the purchaser gets twenty percent of the gasoline and the absorption plant eighty percent ?

A Yes sir.

Q And under those contracts the absorption plant did pay all gathering costs ?

A That is right.

Q And under the scheme as we have it now they will be relieved. That is the proposition that they should bear only ten percent of the gathering cost. Now that means that they are relieved of ninety percent of those costs ?

A That is what that means.

Q Eh ?

A That is exactly what that means.

Q And is there any reason why that gain should be passed back to the producer ?

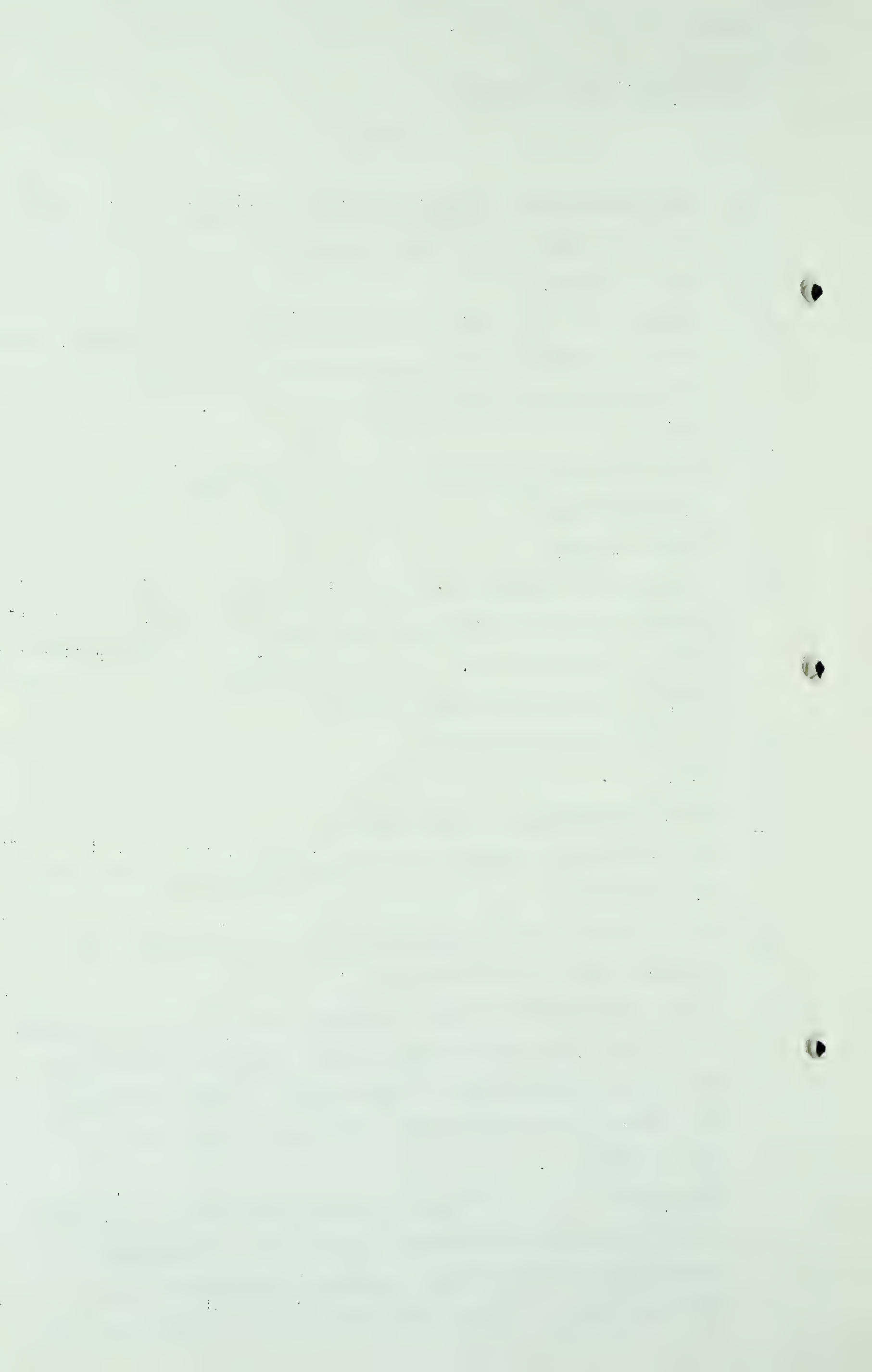
A Well there is not any reason why there should be any such gain as ninety percent to start with.

Q If they can afford to make contracts before they were selling gas at all, they could afford to make contracts whereby they paid all gathering costs. Your position is that they should pay not on a ten percent but a very much heavier basis ?

A That is right.

MR. HARVIE: I think it might be as well Mr. Blanchard to have it on the record that I know of no absorption plant contract that requires them to collect low pressure gas ?

MR. BLANCHARD: I was not talking about low pressure gas.



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I was talking about gas before they had a gas buyer.

I was talking about the contracts.

MR. HARVIE: Which only applies to high pressure gas ?

MR. BLANCHARD: I know. There are no low pressure gas contracts.

Q Now do you really consider from a practical standpoint that there is any likelihood that gas will be put to other use in Turner Valley for carbon black or otherwise ?

A Well I think there is quite a possibility of that.

Q Why should they build in the Turner Valley rather than the Princess field. If there is an adequate supply of gas equally accessible or more accessible from a railway standpoint ?

A They might go to Princess. They might.

Q I mean to say an industry is more apt to go to a field where they are not competing with someone else, such as a wholesale gas distributor ?

A Well that is fair enough. I do not know whether they would go or not.

Q They would go where they could get the cheapest gas ?

A All other things being considered.

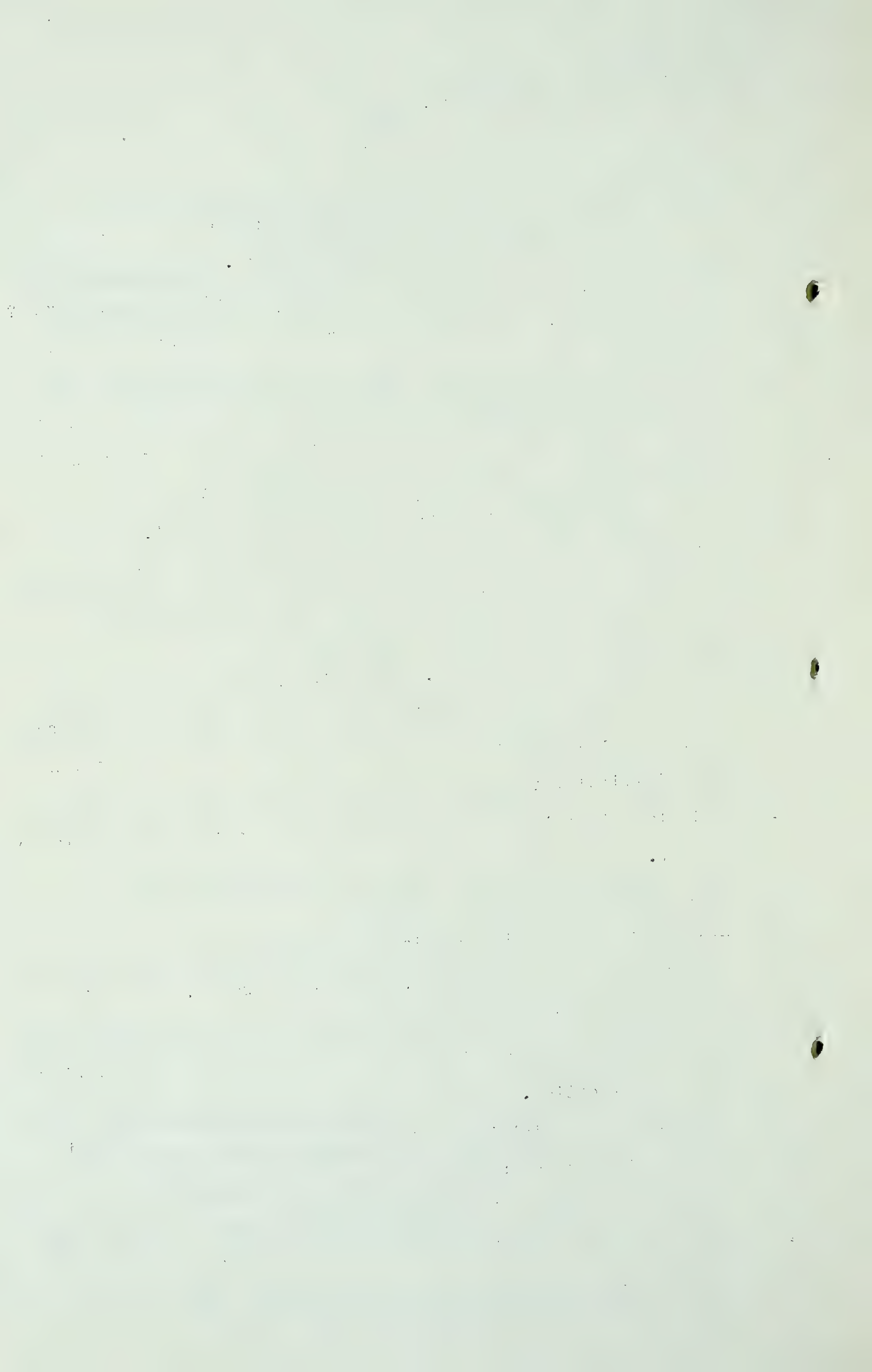
Q All other things being equal, freight and so on. They will go where they get the cheapest gas ?

A They will go where gas is best for their purpose, considering price and location.

Q And assume accessibility is the same in both cases, they will go to a field where there is no market for the gas in that field rather than a field where there is a market ?

A And I say if the gas is equally desirable gas. I do not know that it is.

Q That however would be a reasonable thing to expect ?



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A Not at all. No.

Q That they would go into a field where there was no market ~~er~~ already established for the gas in that field, all other things being equal ?

A Gas for example making carbon black.

Q All other things being equal I said.

A I could tell you that the gas from two separate sands in the same fields, one of those will make one and a tenth pounds per Mcf and the other one a pound and a half. It all depends upon the carbonization of the gas which is the case and it might be that this gas down at Princess, I have no knowledge of it, but Turner Valley is pretty high in the higher hydro-carbons. If it were not for the sulphur in it it would be a very attractive gas.

Q Well as I was saying, all other things being equal you would expect an industry to go to a field where there was no market for the gas ?

A Well when you get everything else equal certainly that is the answer.

Q Now I want to ask you about one other thing and that is this. You have stated that you thought it feasible and not dangerous to use the wet gas delivered direct to consumers ?

A I did not say just exactly that. I said it was feasible to accept the wet gas at the delivery point in Turner Valley and on its passage from that place into Calgary take such means as are necessary to cut the gasoline down if it be present in quantity, and at any rate that is what they are doing, Mr. Blanchard, in many places. That is what other Gas Companies are doing.

Q In other words it would have to go through some sort of

Ralph E. Davis,
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absorption process ?

A No, the gasoline might be caught in traps along the way, wherever the pipe line drops down in a depression of the country. A trap put in there to catch gasoline.

Q That is done is it in the United States ?

A That was the way they did it before they ever heard of gasoline recovery plants and that is the way they will do it where they do not have those plants.

Q The point is if it became unprofitable to operate an absorption plant in Turner Valley that gas could be used without the necessity of operating absorption plants, is that correct ?

A That is right, that is right.

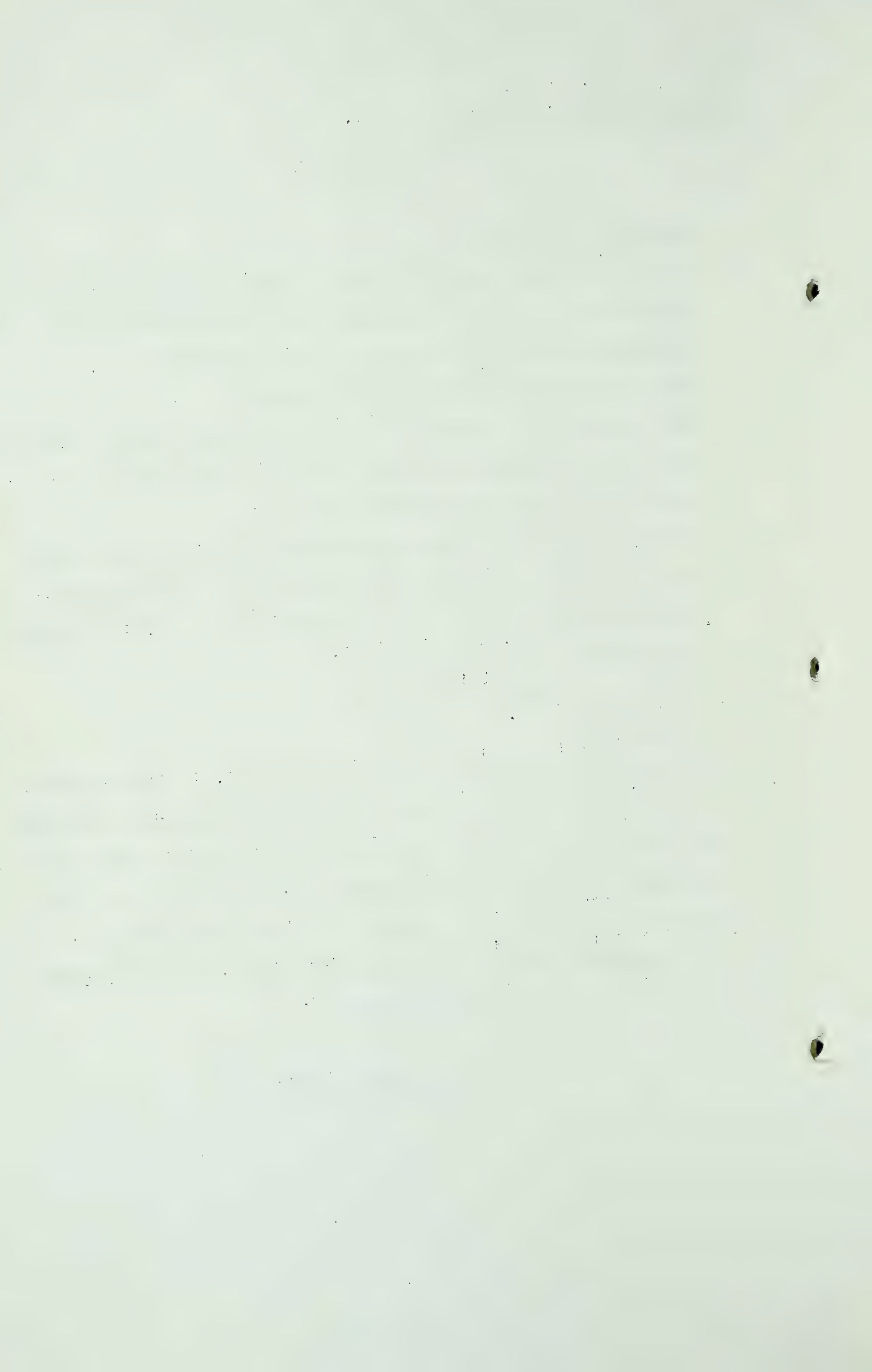
Q That is your opinion ?

A That is right.

Q Now if this gas had no gasoline content, if it were a Methane gas, would it require heaters on lines throughout the system. Are the heaters on these lines, you are familiar I think with the installations of Turner Valley, are the heaters on the lines made necessary by reason of the gasoline content ?

A Well gasoline moisture and hydro-carbons, they tend to form a solid substance in cold weather.

(Go to Page 5638)



T-7-1 4.55 P.M.

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Q Would they require heaters for instance to take the gas to the Gas Company plant and from there on, suppose it had to go a distance of 10 miles, would heaters be required in winter if the gasoline content is taken out? I do not know, I am just asking for information?

A If they took out the gasoline and the moisture they would not be required.

Q Does an absorption plant take out the moisture as well as the gasoline?

A Not necessarily but it is the custom to install at the gasoline plant equipment for dehydrating the gas, taking out the moisture.

MR. STEER: I think the evidence is that there is a dehydration system at the scrubber.

THE CHAIRMAN: And there is evidence that the British American Oil Company have put heaters on their residue gas line.

MR. HARVIE: That is correct.

MR. BLANCHARD: On the residue gas line?

THE CHAIRMAN: Yes.

MR. BLANCHARD: I was not sure on that. I think that is all.

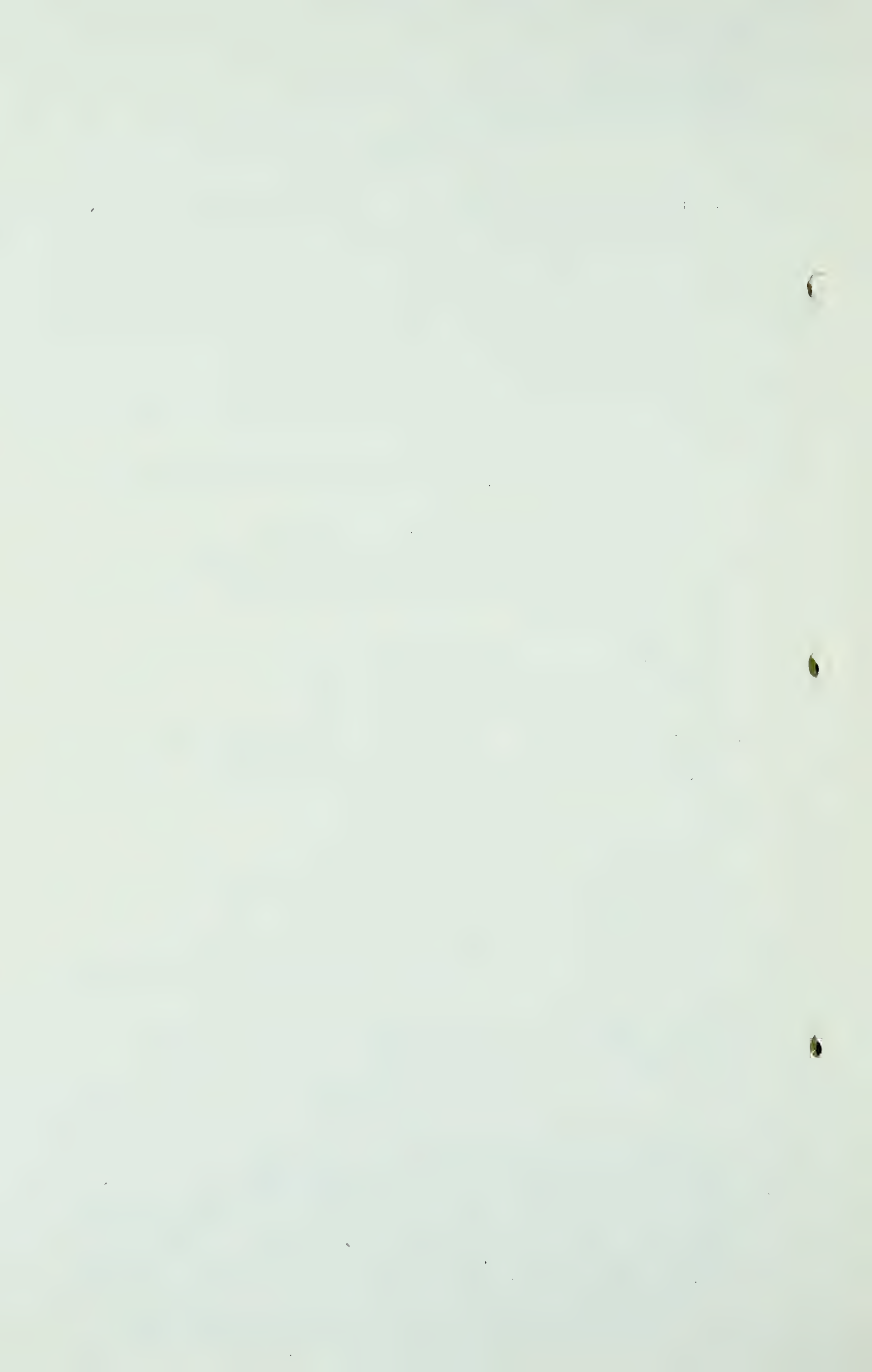
THE CHAIRMAN: Any re-examination, Mr. Steer?

MR. STEER: Nothing more, sir.

.....

EXAMINATION OF THE WITNESS BY THE CHAIRMAN.

Q Mr. Davis, on page 5 of your submission you speak of "The Approach to the Problem of Fixing Price is, so far as I know, based upon cost and a fair return." I take it that your cost there means the price which the distributing



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company pays to the producer of the gas. That is included in the cost?

A No, in the cost there I mean all the cost, the cost of operation, the cost of purchasing the gas, when the gas is being purchased and amortization costs.

Q That is right?

A And the cost of the plant.

Q It does include the cost of purchase?

A Yes, every bit of cost.

Q Would it be correct to say that the price of that gas purchased is arrived at on a bargaining basis?

A In most cases wherever it is bargained that is the way it is done.

Q The buyer and the seller meet and the buyer tries to get the lowest possible price and the seller tries to get the highest possible price?

A I think that is right.

Q Have you ever sat in on one of those meetings, Mr. Davis?

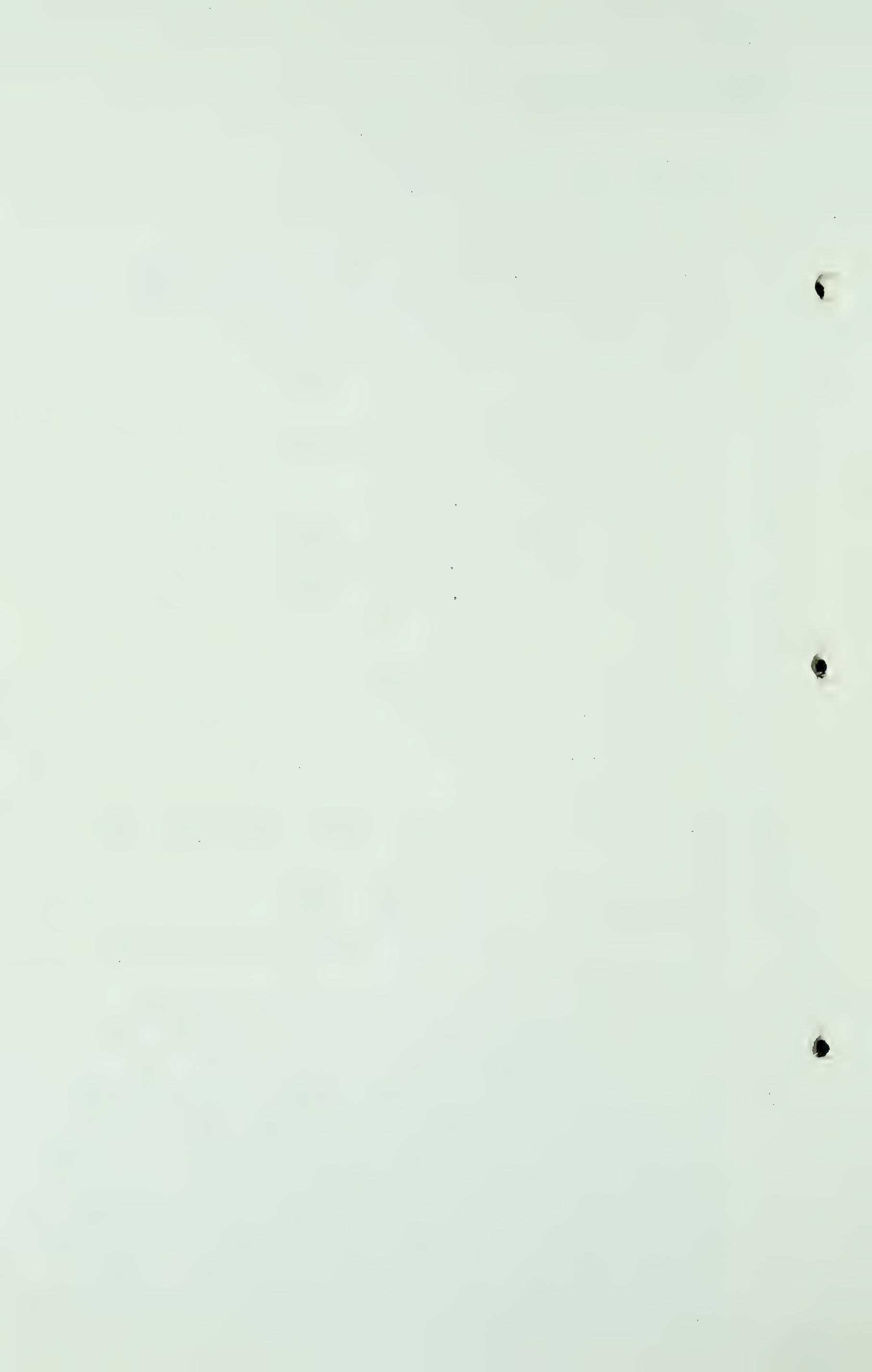
A At a number of those meetings.

Q Were you acting for the buyer or were you acting for the seller, or perhaps sometimes you have acted for both?

A I have acted for both.

Q Now what factors does the seller take into account in trying to get his high price?

A Well I was acting for the seller in the negotiations for the Pacific Gas Electric Company in 1929, prior to the introduction of natural gas into San Francisco. I was sent to California by the people who became the sellers of the gas to negotiate with the Pacific Gas Electric for the sale of gas. They were not even buying natural gas. It was a proposition involving a lot of negotiation. Somebody had to



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build a pipeline. We took into account everything that you could talk about for three months. It took me three months to negotiate that contract.

Q The price at which your client would sell the gas?

A We took into account what his picture would be if he put natural gas in as compared to his then picture. We found out that he could probably reduce his price of gas to the domestic consumer from a dollar and five cents a thousand for 540 B.T.U. gas to about seventy-five cents or eighty cents a thousand for 700 B.T.U. gas, in other words give the consumer more heat at a lower cost. Of course the engineers of the P.G.E. had to review this thing back and forth and determine whether or not they would lose enough market on that account to knock out their earnings and whatnot. In any case we finally arrived at a contract for the sale of gas and we took into account everything, what fuel oil would cost f.o.b. tankers in San Francisco harbor. They were using fuel oil there at the time for making gas. Fuel oil was the fuel used in all commercial establishments. That was one instance.

Q What factors does the buyer consider?

A Well I was representing the bankers who were proposing to buy the bonds and other securities of the Tennessee Gas and Transmission Company just a year ago, when I was here in March last year I was at that time engaged in that consultation. What did we consider? We considered the security of our gas supply for a long-term period as the important matter, decidedly important. We did not want a 5 or 10 year gas supply. We were going to put on a 20 year bond issue, as I recall it, and we wanted an assurance of a 20 year gas supply. So we made that seller at that time to



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place all he had by way of acreage, gas wells, gas producing capacity to the benefit of that contract and having arrived at all of the things that we could make him put in and knowing he had nothing else to put in we said, "Now we will give 5¢ for the first 5 years." It depends upon your situation. If you need 25 years that is one thing and if you need 10 years that is another. I have tried to buy gas for the United Carbon Company for years. I have bought a lot of gas for them and usually they like a longer period than 10 years but a 10 year situation will meet their requirements for gas by carbon black plants. I say 10 years is the minimum however. There again that buyer must buy gas at a price that he can expect in the near future to be able to manufacture black at a profit.

Q So that there are a tremendous number of factors to be taken into consideration both by the buyer and the seller?

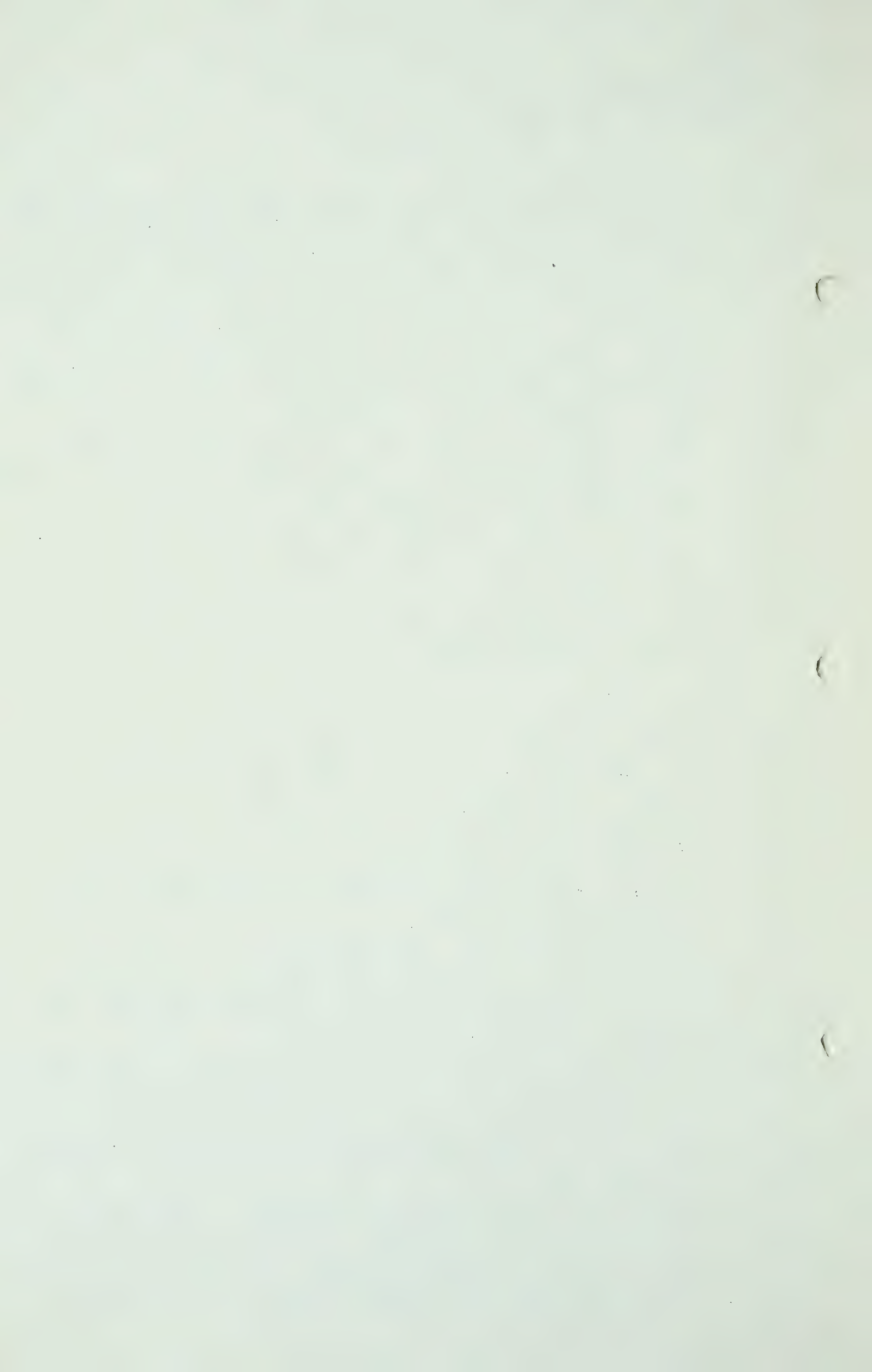
A In every case I believe it is different.

Q And these transactions you speak of I would judge would be very, very substantial and very, very large compared with our little Turner Valley?

A Well the Tennessee Gas contract involves a 25 year supply at 200 million cubic feet a day. That runs into more than 2 trillion cubic feet as I recall it.

Q And could you not, with your wide experience on both sides, even have worked out a hypothetical price for Turner Valley gas that might have been some help to me in arriving at a decision?

A Well I would like to help in this matter. I would like to have the parties on both sides, all sides, and I would like to have them feel that I tried at least to be fair in an



Ralph E. Davis,
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endeavour to help. I must remind you that there are factors in it that cannot be measured mathematically. I know of no way of arriving at a formula. I think you have just got to take under advisement all of the facts and history that has been brought before you and use your best judgment.

Q Which in effect means that I must either adopt the historic price in Turner Valley or pick a figure out of the air?

A You have to have reason for changing it, I think.

Q And that figure I pick out of the air might depend on what I had for breakfast that particular morning?

A Well, or something of that kind.

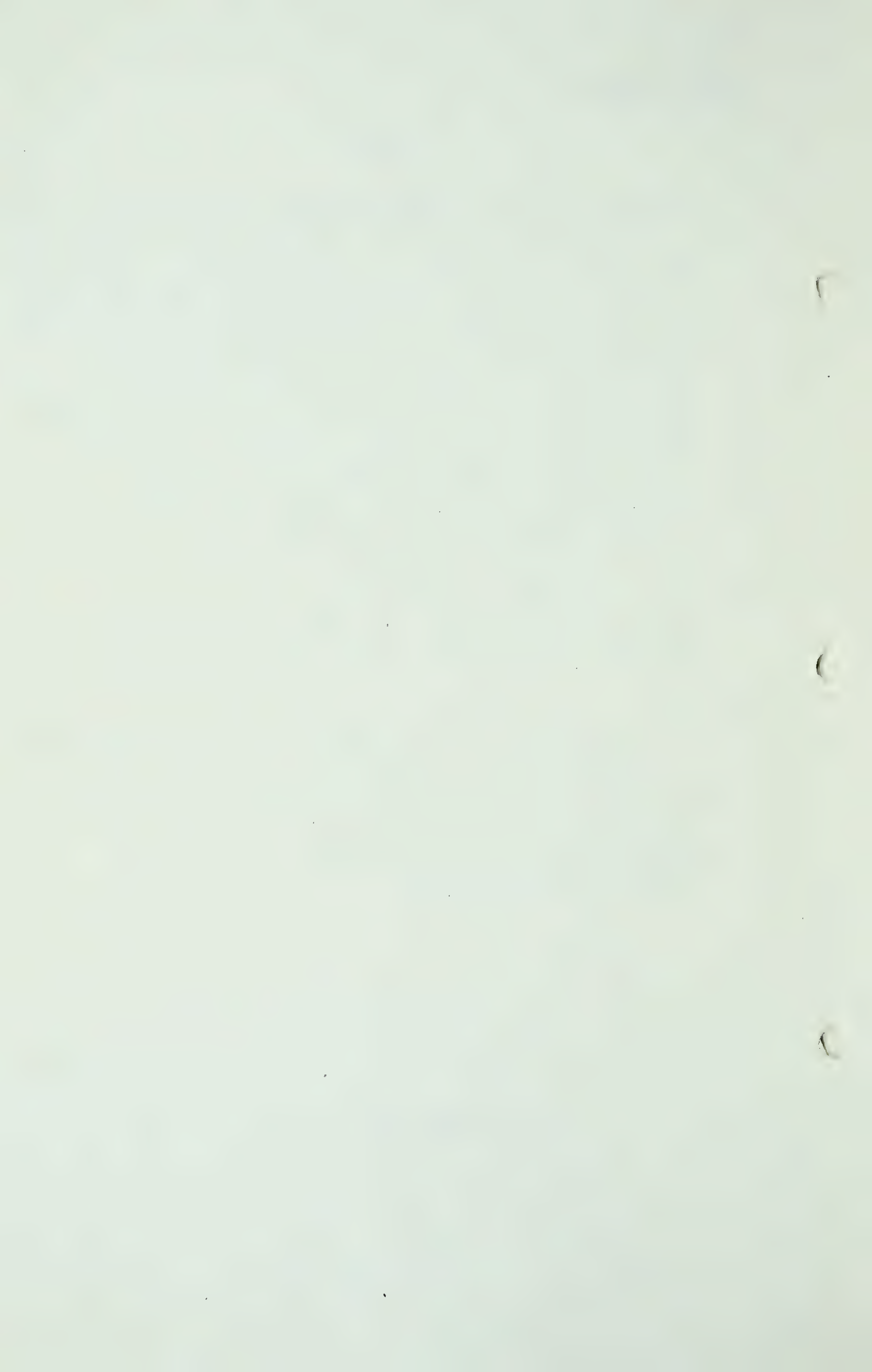
Q Now on page 8, Mr. Davis, you refer to the Tennessee Gas purchases of 5¢, 6¢ and 7¢ for a period of 15 years?

A Yes.

Q And you refer to the figures quoted in, I think, Exhibit 126 filed by Mr. Zinder. I gather and I want you to tell me if I am right, that those figures were for gas at a point of delivery other than the well head?

A For every cubic foot of it.

(Go to page 5643.)



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- 5643 -

Q So that those prices that you mention and the prices mentioned in the Zinder schedule would be subject to a deduction of whatever cost was incurred between the well head and the point of delivery?

A That is right.

Q So that the well head price in those cases would be less, that is the net well head price would be less than the figures you have quoted?

A That is right.

Q Have you any idea by what proportion they would be less than the figures quoted, the net well head price I mean?

A I think, referring now to the Tennessee Gas & Transmission purchases and no other, is that right?

Q If you wish?

A Yes, well in that situation, I would say that the 5 cent figure compares, I think the costs of gathering and delivering the gas in the pipe line at the required pressure, would be something between 1 and $1\frac{1}{2}$ cents, so that you would have a well head price maybe of $3\frac{1}{2}$ or 4 cents?

Q I see?

A That is for sweet gas and in lots of these wells, they are high pressure gas wells, of course the wells would be 500 to 1000 lbs. pressure.

Q I was going to ask you that, what about the pressures relative to Turner Valley?

A Well, taking the gas pressure in Tennessee, that gives a bottom hole pressure of those wells of 2250 lbs. and the top hole pressure is roughly 2000 lbs, and the flowing pressure is more than 1000 lbs, so no compressor is required. Now that is one example.

In the Stratton-Aqua-Dulce Fields the gas is taken

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from a great many different sands, some even are of course high pressure sands and others are not, but there the selling company has a gasoline extraction plant and compressor so that they are raising the pressure for any gas requiring a pressure raise in order to put it into the pipe line.

Q So that actually if we follow out in Turner Valley the same practice as they did in the case of the Tennessee and treating the Gas Company's gate as the point of delivery, then the price to the producer would be the costs incurred between the well head and the point of delivery, plus some other arbitrary figure that I say the producer should get for his gas?

A That is right, that is right.

Q Then just one question more. If the producer should pay for storing the gas not required for the market and not conserved, would it not be proper that they should return the title to their gas so that when the time comes for the sharing of it, they, having paid the cost of storage, should get the benefit of that gas?

A They are, in the first place they own the gas at the moment that it is produced. If they were paying the costs of putting that gas back down into the ground, it certainly should be their gas.

THE CHAIRMAN: Anything further from Mr. Davis?
If not, what have we for tomorrow morning, we have Dr. Katz.

MR. CHAMBERS: I would like to call Mr. Stevens-Guille tomorrow morning, and of course Mr. McLellan on the accounting of that Project "A" which we were talking about the other day, in other words, these two witnesses will deal with the A.W.S.C. contract matter.

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THE CHAIRMAN: Except this, Mr. Chambers, that if we decide that we should have Dr. Katz, then we must call him tomorrow.

MR. CHAMBERS: Oh yes, but I would suggest that we might sit all day unless there is some particular reason why the people who are interested feel we should not.

THE CHAIRMAN: That is subject to what I have to do with Dr. Katz.

MR. FENERTY: When we come to local witnesses, some day I would like to clean up this coal price with Mr. Davies, he has been on edge a number of times.

THE CHAIRMAN: I was hoping we would do it this week but I feel now we cannot, and by the way we cannot sit next week. There are neither Court Rooms nor Court Reporters available, which means that when we adjourn tomorrow we will have to adjourn to the week commencing March 4th.

MR. FENERTY: All I had in mind was I was wondering if we could not clean up that instead of embarking on a new angle.

MR. CHAMBERS: I suggested this other, and this is the reason that I asked Mr. Hamilton to be here, because I thought he wanted to be here.

MR. FENERTY: That is a good reason, it arose during his examination, although we are not particularly concerned with the reason. However, we will leave it then.

THE CHAIRMAN: 9.30 tomorrow, and a quarter to eight tonight at the Conservation Board offices.

(The Hearing was here adjourned, to be resumed at 9.30 A.M. February 29th, 1946).

